

THE ESSENTIAL FACILITIES DOCTRINE: FROM LOCOMOTIVES TO SEARCH ENGINES



BY STEPHEN M. MAURER¹



¹ Adjunct Emeritus Professor of Public Policy, University of California at Berkeley; smaurer@berkeley.edu.

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By Stephen M. Maurer

The Essential Facilities doctrine began as an effort to balance the efficiency of asset-sharing against the need to promote competition. In practice, however, judges have nearly always ignored sharing except to the limited extent that it impacted competition. This bias was not particularly harmful in the Old Economy, where network effects were rare and scale economies limited. But product performance in the Digital Economy often depends on sharing just as much, and sometimes more, than competition. This should remind us to take the frequently subtle tradeoff between sharing and competition seriously. The European Commission's Digital Markets Act (2022) has made the issue still more salient. Requiring judges to consider the benefits of sharing coequally with competition would go a long way toward rationalizing essential facilities case law on both sides of the Atlantic.

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Like most areas of law, antitrust constantly raises new and unexpected fact patterns, followed by frantic scrambles as judges and scholars propose doctrines to fill them. Usually these proposals are either discarded or become standard within a few years. Not so the essential facilities doctrine. It has been fifty years since Prof. A.D. Neale first proposed the idea,² while the Supreme Court cases he relied on go back over a century. Yet his suggestion remains in limbo, neither fully recognized nor altogether extinct. The critics are at least superficially right to say that essential facilities overlaps established doctrines like predation and concerted refusals to deal. Yet despite this, its special focus on large assets and returns to scale still speaks to many practitioners. Somehow, they think, antitrust law would be incomplete without it. And so it lingers.

The reason is a freak of history. Congress's decision to construct the Sherman Act around previously undefined concepts like "monopolization" and "restraint of trade" created a gap for judges to fill. But in the common law, gap-filling typically starts with the easiest cases and saves the hard ones for later. Looking back, the problem for essential facilities was that the easiest cases are all digital – and would not exist until the late 20th Century. This forced judges into the messiness of the physical economy first, producing a blizzard of caveats and *ad hoc* reasoning that have confused the subject ever since. It is only in the last decade that the doctrine's underlying simplicity has started to emerge.

The Sherman Act bans illegal "restraints of trade" and Monopolization." But just what, exactly, do those phrases mean? It took twenty years for the Supreme Court to hit upon a solution. *Standard Oil* (1911)³ invoked what we now call classical microeconomics to rationalize the Sherman Act's categories around the concept of "competition," itself justified by the economist's logic of keeping prices near the cost of production. The gloss has been wonderfully durable.

Even so, it took the Court less than a year to find its limits. It was fine to say that competition by small firms could keep prices near their costs of production. But that ignored "increasing returns to scale" or, less formally, "synergies." On the supply side, these usually meant scale economies that let large firms produce goods more cheaply than small ones. In theory, this implied that a monopolist could sometimes sell goods more cheaply and in greater quantity than smaller firms in a fully-competitive market. Meanwhile, on the demand side, the synergies included what we now call "network effects" i.e. the value consumers receive from being able to buy goods and services from a single source. This could leave consumers better off than facing a myriad of small suppliers. The point in both cases was that judges had to pay attention *both* to competition *and* synergies. Conversely, focusing on competition alone could sometimes destroy value.

The saving grace, in the first years of the 20th Century, was that the problem seldom came up. This was nearly always true for scale economies, which usually encountered diminishing returns fast enough for several companies to compete in the same market. Today we know that network effects typically raise bigger issues. But at the time, these were sufficiently rare that courts could usually escape any serious trade-off between competition and synergy.

Still, law has a genius for finding hard cases. Less than a year after *Standard Oil*, *Terminal Railroad* (1912)⁴ forced this awkward gap onto the Court. The issue was railroads. Passengers who needed to change trains did not want to rush cross-town from one company's station to its competitor's. This immediately suggested that unification could generate enormous value – a network effect – for consumers.

The *Terminal Railroad* decision has been paraphrased so often that it is easy to forget just what the Court said. Modern accounts typically claim that defendants controlled the only railroad bridge for westbound trains crossing into St. Louis. In fact, the city was served by two bridges and a ferry, all of which had formerly competed against each other. Defendants, all railroad companies, had joined together to purchase all three assets and were now accused of trying to exclude their competitors. Federal procedure being different in those days, the case had been tried before a four-judge panel that had deadlocked without producing an opinion. On appeal, the parties called on the US Supreme Court to decide whether defendants' conduct violated Sections One and Two and, if so, what could be done about it. Reviewing the record below, the justices were especially moved by an expert witness named Albert Perkins who testified that unification had created enormous value. This persuaded the justices that Congress could not have wanted the Sherman Act to stand in the way of consumers. Their reasoning is worth quoting:

"If, as we have already said, the combination of two or more mere terminal companies into a single system does not violate the prohibition of the statute against contracts and combinations in restraint of interstate commerce, it is because such a combination may be of the greatest public utility. But when, as here, the inherent conditions are such as to prohibit any other reasonable means of entering the city, the combination of every such facility under the exclusive ownership and control of less than all of the companies under compulsion to use them violates both the first and second sections of the act, in that it constitutes a contract or combination

² A.D. Neale, *The Antitrust Laws of the United States of America: A Study of Competition Enforced by Law* (2d ed. 1970).

³ *United States v. Standard Oil Co.*, 221 U.S. 1 (1911)

⁴ *United States v. Terminal R.R. Ass'n*, 224 U.S. 383 (1912).

in restraint of commerce among the states and an attempt to monopolize commerce among the states which must pass through the gateway at St. Louis.”

The first sentence plainly says that the Sherman Act does not forbid *all* agreements to merge rail facilities “because” – the word is significant – this offers “the greatest public utility.” Here the Court recognized what was already clear from economic theory, that there were cases where the synergies at stake outweighed any possible damage to competition. The second sentence then goes on to say that some agreements – those that fail to offer access to all competitors – are nevertheless illegal. Finally, the passage is also notable for what it does not say. While the Sherman Act certainly addresses voluntary unification, it does not *compel* sharing unless and until the parties attempt it.

Beyond these general principles, though, it was only natural for the justices to ask if the tradeoff between sharing and competition could be finessed in the case before them. Once again, Perkins came to the rescue. Defendants, he pointed out, had already established a jointly-owned company to operate their facilities. Why not open ownership to any railroad willing to share the costs? This would immediately end discrimination against the new owners. For its part, the Court improved Perkins’ idea by adding two additional stipulations. First, they barred the operating company from paying dividends. This meant that the owners could never get any part of their access fees back, creating a powerful incentive to keep the operating company’s charges as low as possible. This would force the railroads would perform the same cost-containment function that the government normally pays regulators to do. And second, if the defendants objected to Perkins’ scheme, the Court would not force them but instead order divestiture. This immediately removed any danger that the Court’s scheme might turn out to be impractical.

It is hard to exaggerate the scheme’s elegance. All the same, the justices probably thought their new precedent would seldom be used. They knew, of course, that lawyers would invoke the argument to defend mergers among competitors. But railroads were an outlier in the early 20th Century, and the advantages of unification for most industries were vastly smaller. Then too, today we know that the Perkins scheme was flawed. As Prof. Scotchmer has shown, *any* rule that allocates access fees across multiple users automatically leads to some combination of new entry barriers and above-cost pricing.⁵ This did not matter much for *Terminal Railroad* because the network effects were so large. But for close cases competitive effects would often predominate.

The Court did not return to *Terminal Railroad* until William O. Douglas’s familiar concurrence in *Associated Press vs. United States* (1945).⁶ The Associated Press (“AP”) was a newsgathering cooperative owned and funded by hundreds of local newspapers. This created a vast synergy for members, who could never have gathered as much news on their own. But AP also let existing members veto membership applications from competing crosstown newspapers. The Court struck down this practice and ordered AP to repair the injury by admitting applicants who had been previously turned away. Still, the Court was careful to leave open the question of whether AP could freeze all new memberships beyond that. So while ending discrimination was good for competition, the case did nothing for synergies.

Justice Douglas was the only member of the Court to address *Terminal Railroad*. Ignoring his predecessors’ suggestion that synergy might sometimes trump competition, Douglas seems to have assumed that courts could always find some way around the tradeoff. But if that were true, it was enough for judges to worry about competition while deferring synergies, if at all, to the relief stage. And indeed, later cases quickly adopted this pattern. Where *Terminal Railway* had suggested that sharing might sometimes be necessary *despite* damage to competition, cases like *Lorraine Journal* now focused instead on whether access was needed to *promote* it. This turned the inquiry into a discussion about leveraging and predation. Judges would have known, of course, that there were cases where natural monopoly, say, made synergies too big to ignore. Presumably they thought Congress could address these special cases outside the Sherman Act.

Finally, the Court left the biggest question of all unanswered: Could AP freeze its *total* membership at current levels provided it stopped discriminating? Had such a case been brought, the synergies would have been even stronger than in *Terminal Railroad*. After all, a bridge can only accommodate so many railcars, while press reports can be shared with unlimited numbers of newspapers and readers. So the argument from synergy would have been that opening AP’s membership would produce more news at less cost per reader. Against this, the argument for competition would have held that forcing outsiders to create a rival organization would make AP work harder. Yet that would have been a tough sell: Given that AP was already quite efficient, further gains were bound to be limited, and almost certainly dwarfed by

5 For a rigorous analysis of how different sharing arrangements support above-cost pricing and/or deter entry, see Stephen M. Maurer and Suzanne Scotchmer, “The Essential Facilities Doctrine: The Lost Message of *Terminal Railroad*,” 5 *California Law Review: Circuit* 278 (2014), at pp. 315ff. Available at http://www.californialawreview.org/wp-content/uploads/2014/10/MAURER_278.pdf.

6 *Associated Press v. United States*, 326 U.S. 1 (1945).

the resources that a new competitor would waste trying to duplicate AP's existing coverage. In practice, the one thing we know for certain is that the market vastly preferred synergy to duplication: When AP opened its membership a few months later, the entire industry joined.⁷

That was where matters stood when Prof. Neal came along. His timing was impeccable: By 1970, network effects were proliferating across the economy. The result was a decade of new cases culminating in the Seventh Circuit's decision to embrace Neal's brainchild in *MCI v. American Telephone & Telegraph*.⁸ On the face of things, *MCI* should have been a synergies case: Everything about competitors' need to access AT&T's "Bell Network" screamed "network effects." But Douglas cast a long shadow: Each of the Seventh Circuit's four elements – control of an essential facility, competitors' inability to duplicate it, owners' refusal to share, and feasibility of sharing – focused on "anticompetitive conduct." This left synergies, at best, a subsidiary consideration: Not so much goals in their own right as handmaidens to competition. Yet despite this, litigators continued to sense something special about large facilities that could only be built once. This led later courts to wander off into open-ended policy discussions as if the Seventh Circuit's elements had not settled anything after all. As Prof. Areeda wrote, this made essential facilities more "epithet" than doctrine.⁹ Finally, feasibility continued to pose thorny problems. Perkins' trick worked best for freestanding objects like bridges and ferries. But most firms in the physical economy processed raw materials through a series of highly integrated operations to a final product. Even supposing that one of these steps offered large scale economies, the operations were usually too interconnected to be spun off. One could, of course, ask what each step cost. But that was a task for government regulators, not judges.

These difficulties could only make judges nervous. Even when plaintiffs won, courts were careful to define the doctrine as narrowly as possible. Here the most consequential examples were *Otter Tail* (1973), where the Supreme Court accepted forced sharing because government regulators would review whatever prices were set, and *Aspen Skiing* (1985), where the justices justified sharing because defendants had done it in the past. Small wonder, then, when the Court's *Trinko* (2004) opinion announced that the doctrine had reached its "outer limits" in *Aspen*, and might not exist at all.

And yet, the essential facilities doctrine refused to die. Even as American judges expressed doubts, Europe had begun embracing it in cases like *Commercial Solvents* (1974),¹⁰ *Port of Rødby* (1994),¹¹ and *Bronner* (1998).¹² Like their US counterparts, these early cases focused mostly on physical scale economies and the feasibility of sharing. Soon however, Europe went beyond US examples¹³ by turning to information goods. The fact that the intellectual property in these cases was slender – including, for example, doubtful rights in television listings [*Magill* (1995)¹⁴], the "brick structure" of a commercial database [*IMS Health* (2001)¹⁵], and the arbitrarily-named commands that software developers needed to access an operating system [*Microsoft* (2007)¹⁶] – only underscored the case for sharing.

By now the clear argument for synergy in cases like *Terminal Railroad* and *AP* had bogged down in a host of much more ambiguous fact patterns where the synergies were modest and the trade-offs with competition uncertain. The surprise in the digital economy is that the trend has reversed itself, even if so far the cases are mostly hypothetical. Consider for example, Google. A pathbreaking analysis by Klein et al.¹⁷ recently showed that the company's searches are indeed better than any competitor's, and that this explains the company's outsized ninety-three percent market share.¹⁸ What is striking, though, is that Google's quality advantage does not come from cleverness.

7 Anon., "The Associated Press," Encyclopedia.com, (2018), available at <https://www.encyclopedia.com/social-sciences-and-law/economics-business-and-labor/business-es-and-occupations/associated-press>.

8 *MCI Communications Corp. v. Am. Tel. & Tel. Co.*, 708 F.2d 1081 (7th Cir. 1983).

9 Philip J. Areeda, "Essential Facilities: An Epithet in Need of Limiting Principles," *Antitrust LJ* 51: 841 (1989).

10 Joined Cases 6/73 & 7/73, *Istituto Chemioterapico Italiano S.p.A. & Commercial Solvents Corp. v. Comm'n*, 1974 E.C.R. 223.

11 Commission Decision 94/119, 1994 O.J. (L55) 52 (EC).

12 Case C-7/97, *Oscar Bronner GmbH & CO. KG v. Mediaprint Zeitungs und Zeitschriftenverlag GmbH & Co.*, 1998 E.C.R. I-779.

13 *But see, Intergraph Corp. v. Intel Corp.*, 195 F.3d 1346 (Fed. Cir. 1999).

14 Joined Cases C-241/91 P & C-242/91 P, *Radio Telefis Eireann (RTE) and Independent Television Publications Ltd. (ITP) v. Comm'n*, 1995 E.C.R. I-743.

15 Case T-184/01 R, *IMS Health, Inc. v. Commission*, 2001 E.C.R. II-3198.

16 Case T-201/04, *Microsoft Corp. v. Comm'n*, Commission 2007 E.C.R. II-3619.

17 Tobias J. Klein, Madina Kurmangaliyeva, Jens Prüfer and Patricia Prüfer, "How Important Are User-Generated Data for Search Result Quality? Empirical Evidence." *Social Science Research Network* No. 4229292, https://papers.ssrn.com/sol3/papers.cfm?abstract_id=4229292.

18 Statcounter, "Search Engine Market Share Worldwide, Dec 2021 - Dec 2022," available at <https://gs.statcounter.com/search-engine-market-share#:~:text=%20%20%20Search%20Engines%20%20%20Percentage,%201.32%20%25%20%204%20more%20rows%20>.

To the contrary: Other companies' algorithms perform just as well – but only when they have access to the same training data.¹⁹ So yes, Google dominates the industry because its searches are better. But that is only because of the company's market share, itself a legacy of Google's luck in jumping out to an early lead two decades ago. In some ways the situation resembles AP, where incumbents' refusal to share put non-members at a permanent handicap. But the case is also like *Terminal Railroad*, because *every* search engine – including Google's – would perform better if sharing were universal. Finally, digitization has vastly simplified the mechanics of sharing. After all, user statistics, unlike bridges, can be copied and instantly disseminated at no cost. All member companies have to do is share data the moment their own analysts see it. Granted that each company currently formats its data idiosyncratically, participants would soon learn to extract what they needed or adopt more compatible nomenclatures. And if physical storage still turns out to offer scale economies, the parties can always share ownership on the Perkins pattern.

Moreover, Google is far from the only example. Indeed, Twitter's case might be more urgent. Like Google, its value-added consists of search, though in this case figuring out and publicizing the most crowd-pleasing tweets. Opening real time access to this data would almost certainly invite more competitors to enter the fray. But what makes Twitter special is that it is so heavily embroiled in politics. As Prof. Hofstadter long ago pointed out, Congress wrote the Sherman Act less for economic efficiency than to limit the *political* power of private companies.²⁰ This concern is particularly strong for Twitter, whose employees have long used the company's market dominance to squelch speech they dislike.²¹ That, however, was before Elon Musk bought the company. Musk is plainly betting that slashing "content moderation" will simultaneously trim costs and make the site more popular. For now, it is too early to tell. But the fact that he believes such a thing already shows that market forces are good for political discourse. And antitrust can only sharpen these incentives.

The question now is how Europe and America will respond to these developments, and what the essential facilities doctrine can contribute. For a time, some European scholars thought it would be enough to extend the EC's existing case law to confront the big American tech platforms.²² But the European Commission ("EC") rejected this on the ground that existing antitrust law was too complicated and time-consuming to regulate fast-moving markets. So in 2022, it passed a new regulation, the Digital Markets Act ("DMA").²³ Modelled on an earlier German law,²⁴ it imposes twenty-two new obligations on the large "gatekeeper" companies that dominate the Web. These include a duty to share data and also make them available in compatible formats.²⁵

There are several problems here. First, the fact that the DMA limits its sharing obligations to large "gatekeepers" seems misguided. After all, synergies are synergies, no matter who collects the data. Like Justice Douglas, the EC has fallen into trap of reducing antitrust to a problem of competition, and competition alone. Second, the DMA never says which sharing arrangements are best. Instead, it only tells corporations to pick their own methods – and face outsized penalties if they guess wrong. As I write this, Google has already opened the bidding by offering to share on so-called Fair and Reasonable ("FRAND") terms. Still, that sounds like small beer: In the microelectronics industry, at least, FRAND has seldom been more than a promise to negotiate, and too often a curtain-raiser to litigation. The alternative, according to some European scholars, would be to share data through government-run centers.²⁶ Here, most Americans will object that civil servants are certain to cost more and do less work than private employees. Even so, the proposal is not terribly different from the Perkins solution. The main point, of course, is that the facility must never pay dividends to whichever government creates it.

Meanwhile, Americans have a chance to untangle the confusions that have afflicted essential facilities for over a century. Here the most pressing item is whether Congress should follow Europe by forcing on-line platforms to share. Lobbyists will predictably argue that Congress should not confiscate data any more than it should take physical property. This, however, misunderstands the law: The legal basis for protecting data – trade secrets – has nothing to do with property, but reflects contractual agreements between owners and employees.²⁷ The deeper point

19 Klein et al., *supra* note 17.

20 Richard Hofstadter, "What Happened to the Antitrust Movement?" pp. 659-700 in Sean Wilentz (ed.), *Hofstadter* (Library of America: 2022 [1964]).

21 Nicholas Wade, "Cleaning Twitter's Augean Stables," *City Journal* (Dec. 21 2021), available at <https://www.city-journal.org/cleaning-up-twitter>.

22 Jens Prüfer, *8 J Comp. Law & Econ.* 73 (2012).

23 Regulation (EU) 2022/1925 of the European Parliament and of the Council of 14 September 2022 on contestable and fair markets in the digital sector.

24 Anon., "Germany Adopts New Competition Rules for Tech Platforms" *Jones Day* (Jan. 2021), available at <https://www.jonesday.com/en/insights/2021/01/germany-adopts-new-competition-rules>.

25 DMA Arts. 6.10 and 6.11.

26 Inge Graef and Jens Prüfer, "Governance of Data Sharing: A Law and Economics Proposal," 50 *Research Policy*: Art No. 1040330. (Nov. 2021).

27 *E.I. DuPont de Nemours Powder Co. v. Masland*, 244 U.S. 100 (1917); see also Mathias F. Correa, "Protection of Business Secrets," 18 *Business Lawyer* 531 (Jan. 1963).

concerns policy: Congress created “intellectual property” rights like patents based on its judgment that they would incentivize innovation. The case is very different for data, where Congress has repeatedly refused to grant any property rights at all.

And if Congress does follow Europe’s lead, it should try to improve it. First, any sharing obligation should extend to small companies, possibly with a chance to opt-out for those that refuse to access the gatekeepers’ data. Second, DMA was written to cover internet platforms. But that is a very broad category, and not every industry will possess large enough synergies to justify forced sharing. Better to announce a presumption of sharing and let companies rebut it in court. Finally, Klein et al.’s findings are narrowly focused on Google. More usually, though, we expect companies that invest more in R&D to offer higher performance, and therefore to attract more users. But in that case the rewards from R&D will include *both* more ad revenue *and* the multiplier effect of more user data that improves quality even more. The catch is that this second reward disappears as soon as the data are shared, so that increased sharing could mean less data overall. Even granting that this might still be the right trade, each case will have to be evaluated on its own merits.

Finally, even if Congress does not act, experience with the digital economy will help clarify existing doctrine. On the one hand, courts should remember *Terminal Railroad*’s core insight that sharing is an integral part of the Sherman Act, and can even reverse the usual rules where outsized synergies are present. On the other, and in keeping with our AP discussion, courts should strike down restrictions when the expected synergies would unambiguously reduce costs and improve quality. While clear IP rights would remain a defense, judges should show a *Magill*-like skepticism toward claims that seem legally doubtful and/or involve investments that defendants would have made anyway as a “spinoff” from normal business operations. The hardest questions, as usual, will involve physical assets. Here the basic principle should be that there is no fundamental difference between shared data and a railroad bridge with more excess capacity than competitors are ever likely to use. It follows that physical assets should only be placed outside the doctrine when congestion is likely. Finally, judges should heed the *Trinko* court’s warning that remedies based on the Perkins mechanism and *Otter Tail*-style regulatory piggy-backing have limited application. When judges cannot invent suitable relief, they should simply say so and move on.

Beyond these broad principles, the digital economy is bound to pose new questions. Suppose, for example, that small search companies voluntarily pool their data to level the playing field against Google. Can Google invoke Section 1 to force its way in? Or suppose that monopolists decide that sharing data will undercut the competition that keeps their R&D budgets high. Should Section 2 block this even if sharing simultaneously increases consumer welfare? Such cases will challenge American scholars and judges to reimagine and, it may be, breathe new life into the essential facilities doctrine. At a minimum, they remind us of *Terminal Railroad*’s long-ago message that antitrust law is about more than competition. Now more than ever, judges who ignore synergies risk vandalizing the economy.



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