10-1-2004

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Recommended Citation
Jason Leff, Rage against the Machine: How the NLRB Used Section 8(e) of the National Labor Relations Act to Kill the Virtual Orchestra, 6 N.C. J.L. & Tech. 107 (2004).
Available at: http://scholarship.law.unc.edu/ncjolt/vol6/iss1/7
Rage Against the Machine: How the NLRB Used Section 8(e) of the National Labor Relations Act to Kill the Virtual Orchestra

Jason Leff

The basic goal of our technology is to come up with a performing instrument for the 21st century.

We stand firm in our position that this machine is not a musical instrument and was created and designed to replace live musicians.

I. Introduction

The Sinfonia is part of a new breed of virtual orchestra instruments designed to faithfully recreate the sound of a traditional full-size orchestra from a single computerized console. Thus far, the technology has been used in over thirty productions across the country, including the national tours of Annie and Miss Saigon, as well as the Cirque du Soleil. Unlike a traditional orchestra, however, which is composed of numerous musicians

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1 J.D. Candidate, University of North Carolina School of Law, 2006. Special thanks to Marion Crain, Paul Eaton Professor of Law at the University of North Carolina School of Law, for her invaluable assistance throughout the editorial process.


4 See generally Johnson, supra note 2 (discussing the origins of the Sinfonia technology).

playing traditional acoustic instruments, the Sinfonia is operated by a single keyboardist who is responsible for playing standard keyboard parts and manipulating pre-recorded orchestral samples in real-time.6

Since the Sinfonia's introduction several years ago, the American Federation of Musicians ("AFM") has fought vigorously to prevent this technology from being used in musical theatre productions. Union members view the Sinfonia as a threat to professional musicians' jobs and an illegitimate form of live performance art.7 At the same time, producers and composers have embraced the unique creative and financial opportunities presented by the instrument.8

The use of virtual orchestra technology was one of the driving forces behind a Broadway musicians' strike in 2003.9 During the course of the strike, Broadway producers threatened to replace unionized musicians with virtual orchestra technology.10 The strike-ending agreement included a provision in which Broadway producers agreed to use the virtual orchestra only as a supplement to traditional live instrumentation and only as long as the number of live musicians in the orchestra pit met an agreed upon minimum.11 Since this Broadway strike, the battle over virtual orchestra technology has shifted to off-Broadway and touring productions,12 where producers are not covered by

6 Johnson, supra note 2.
8 Id. (quoting the makers of Sinfonia, defending the use of technology in live performances).
10 Id.
11 Id.
12 Off-Broadway shows are presented outside the Broadway entertainment district of New York City. These productions are often characterized by their experimental nature. AM. HERITAGE C. DICTIONARY 946 (3d ed. 1997). The controversy surrounding the Sinfonia has not been confined to New York City, however. See generally Vince Horiuchi, Is It Live or Is It a Sinfonia?, SALT LAKE TRIB., Apr. 18, 2003, at E1 (describing union resistance to touring productions utilizing Sinfona, such as Miss Saigon, Porgy and Bess, Cinderella,
standardized union contracts and there are no agreements requiring a minimum number of union musicians.\textsuperscript{13}

In February 2004, AFM Local 802 announced a joint agreement with the off-Broadway Opera Company of Brooklyn ("OCB") banning the use of the virtual orchestra.\textsuperscript{14} This included all productions, performances, and rehearsals.\textsuperscript{15} On March 4, 2004, Realtime Music Systems ("Realtime"), the maker of Sinfonia virtual orchestra technology, filed an unfair labor practice charge against Local 802.\textsuperscript{16} Realtime alleged that the February 2004 agreement between Local 802 and OCB violated section 8(e) of the National Labor Relations Act, the so-called "hot cargo"\textsuperscript{17} provision, which prohibits unions and employers from entering into agreements in which the employer agrees to refrain from dealing in the products of another employer.\textsuperscript{18} On March 30, 2004, the National Labor Relations Board's ("NLRB") Regional Director in Brooklyn, New York ruled that Local 802 acted legally in contracting with OCB to eliminate the use of the virtual

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\textsuperscript{13} Robert Hofler, 'Sex' Producers Prep Virtual Orch, DAILY VARIETY, Mar. 13, 2004, at 55.

\textsuperscript{14} Armbrust, supra note 3. The agreement followed on the heels of an OCB production of Mozart's \textit{Le Nozze di Figaro}, in which the Sinfonia was used. Although the production was to feature live musicians performing in tandem with the Sinfonia, Local 802 representatives successfully pressured the musicians involved not to play with the Sinfonia's accompaniment. \textit{Id.}

\textsuperscript{15} \textit{Id.}

\textsuperscript{16} Christopher Walsh, 'Virtual Orchestra' Strikes Sour Note with Musicians, BILLBOARD, Mar. 27, 2004, at 6.

\textsuperscript{17} Generally, "hot cargo" clauses contractually compel employers not to do business with third-party employers. The origin of the term "hot cargo" can be traced to the Teamsters Union, who would often refuse to transport cargo made by employers with whom the Teamsters had a labor dispute. See Janice R. Bellace, \textit{Regulating Secondary Action: British and American Approaches}, 4 COMP. LAB. L.J. 115, 128–29 (1981). The term is still used today, even in cases where actual cargo is not involved.

Subsequently, Realtime appealed the Regional Director’s decision to the NRLB’s General Counsel (“GC”). On May 19, 2004, the GC upheld the decision of the Regional Director and dismissed Realtime’s claim.

In the period immediately following the GC’s decision, the decision’s “far-reaching effects” echoed throughout the world of

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19 Letter from Alvin Blyer, NLRB Regional Director, to Edward Lieber, Esq., counsel for Realtime Music Solutions, Re: Local 802, American Federation of Musicians (Realtime Music Solutions) Case No. 29–CE–123 (Mar. 30, 2004) (on file with the North Carolina Journal of Law & Technology). The Regional Director’s decision was not published and was mailed directly to the parties involved.

20 The NLRB is an independent federal agency created to administer the National Labor Relations Act. The agency is comprised of two major components—the Board itself and the General Counsel (GC). The Board itself has five members and acts as a judicial body, deciding cases on the basis of formal records in administrative proceedings. The GC is independent from the Board and is responsible for the investigation and prosecution of unfair labor practice cases and for supervision of NLRB field offices in processing cases. Regional directors are responsible for making the initial determination in cases falling within the appropriate geographical area. If the regional director decides the charge lacks merit, it will be dismissed. A dismissal may be appealed to the GC office in Washington, D.C. *NLRB Facts, at* http://www.nlrb.gov/nlrb/press/facts.asp (last visited Nov. 19, 2004) (on file with the North Carolina Journal of Law & Technology). The GC’s decision whether to issue a complaint is final and is not subject to judicial review. In addition, the GC’s decision not to issue a complaint does not constitute a “final opinion” and has little value as precedent. See generally Theodore J. St. Antoine et al., Labor Relations Law: Cases and Materials 60 (10th ed. 1999).

21 Letter from Arthur F. Rosenfeld, NLRB General Counsel, to Edward Lieber, Esq., counsel for Realtime Music Solutions, Re: Local 802, American Federation of Musicians (Realtime Music Solutions) Case No. 29–CE–123–1 (May 19, 2004) (on file with the North Carolina Journal of Law & Technology). The GC’s decision was not published and was mailed directly to the parties involved. In another interesting twist, in April 2004, the OCB voided its contract with Local 802, announcing that the agreement was “null and void and of no legal or equitable effect.” See Armbrust, *supra* note 3 (reporting that OCB accused Local 802 of coercive tactics in achieving the agreement). “Due to coercive tactics by the union, a board member from OCB signed the Feb. 6 document on the spot without board approval. OCB renounces the document and likewise any dictation by the 802 union as to what instruments OCB is allowed to employ in performance.” *Id.*
New York theatre. Soon after the decision, industry periodicals predicted that it would "induce the union to push for including in its other new contracts a prohibition against the use of virtual music in future productions." Local 802 did just that: The union contracted with three more theatres to ban the virtual orchestra. Subsequent union literature suggested that Local 802 was planning similar pacts with other off-Broadway theatres. In addition, commentators have acknowledged that the precedent established by the GC "could aid the AFM in fighting attempts to implement virtual music in other productions, including Broadway tours and shows around the nation." Accordingly, union president David Lennon has framed the legal conflict as part of a larger battle to "save live music."

This Recent Development examines the NLRB's decision in the Realtime charge and argues that the GC erred when he upheld the Regional Director's decision to sustain the contract between Local 802 and OCB as negotiated. This error resulted from a misguided application of section 8(e) of the NLRA and the sword and shield distinction established by the Supreme Court in Woodwork Mfrs. Ass'n v. NLRB. Additionally, this Recent Development proposes that underlying the GC's misapplication of the law was his refusal to recognize the virtual orchestra as a legitimate musical instrument rather than a machine designed for the purpose of replacing musicians. In addition to faulty logic, the

23 *Id.*
24 Roger Armbrust, *Local 802 Ups Fight Against Virtual Music*, BACK STAGE, June 18, 2004, at 3 (reporting that the National Black Theatre, Classic Stage Company, and the Vineyard Theatre and Workshop Company have agreed to ban the use of virtual orchestra technology).
25 *Id.* (noting that the union's newspaper has mentioned additional theatre companies as potential targets: Atlantic, MCC, Primary Stages, Signature, and Women's Project and Productions).
26 Armbrust, supra note 22.
27 Armbrust, supra note 18. See also Justin Glanville, 'Virtual' Bands Draw Real Protests, Associated Press, Apr. 13, 2004 (quoting Lennon, who accuses supporters of virtual music technology of trying to "eliminate live music" and "reap greater profit").
GC failed to consider the negative policy implications of his decision.

II. Even Better Than the Real Thing? The Sinfonia vs. Live Music

A. How the Sinfonia Works

Long before Realtime's Sinfonia was being produced and marketed, the term virtual orchestra was used to describe any type of technology designed to simulate, replace, or enhance an orchestra or band. Unlike a standard keyboard, which can only handle a few sounds at once, the Sinfonia is able to play the sounds of a limitless number of musical instruments. Unlike a tape-recorded score, which is fixed in time and merely plays in the background of a live theatre performance, the Sinfonia is played by a live musician. This makes the music performed responsive to the action onstage, the live conductor, and other live instruments. The use of sophisticated music sequencing technology distinguishes the Sinfonia from previous inventions, allowing every element of a piece of music to be broken down into digital data. The Sinfonia uses sound filtering software that can facilitate up to fifty different sound nuances in simulating the qualities of live instrumentation. The software can "layer" the sounds of many instruments at once to build a "virtual model" of the show's full score. During preparations for a production, the show's entire orchestral score is recorded into the Sinfonia equipment, one acoustic instrument at a time. At the time of performance, this pre-recorded information can be altered instantaneously to fit the "tempo and dynamic" of the other

29 Johnson, supra note 2 (discussing the origins of the Sinfonia technology).
31 Id.
32 Chartrand, supra note 9, at C4.
34 Id.
35 See Chartrand, supra note 9, at C4.
performers. One of the Sinfonia’s creators described it as “an interface between the way music is stored in sequencing and the way it is manipulated in real time so we can modify various parameters of music, based on the requirements of the moment.”

While the technology relies heavily on pre-recorded samples, during a live performance, changeable “musical” and “expressive” elements of the score, such as tempo, are controlled by a live musician.

Visually, the Sinfonia looks nothing like a traditional acoustic instrument. According to one journalist’s account, the technology resembles “a desk with a couple of monitors, a keyboard and mouse, and drawers with computer peripherals alongside.” Prior to each performance, the Sinfonia requires a significant amount of custom programming—“every note, each articulation and shape” must be programmed beforehand. During the course of a performance, the Sinfonia is controlled by a keyboard player. The musician playing the Sinfonia has a dual role: playing standard keyboard parts and operating the sophisticated computer software that manipulates pre-programmed orchestral instruments and arrangements. The Sinfonist is required to read music, respond to the conductor, follow the tempo of the music, and know when to cut off notes. She also has the ability to initiate arbitrary improvisations, key changes, extended notes, and pick-up phrases. In touring performances, the Sinfonia has been supplemented by up to twelve live musicians—including a solo violinist, a trumpet player, or a reed—who play along with the Sinfonia. When operating in tandem with traditional live instruments, the Sinfonia operates as “a member of

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36 Id.
37 Id.
38 Id.
40 Chartrand, supra note 9, at C4.
41 Johnson, supra note 2.
42 Broadway’s Virtual Music, supra note 39.
43 Brown, supra note 33, at 11.
44 Broadway’s Virtual Music, supra note 39.
the band, like the trumpet or the violin.\textsuperscript{45} The computer and keyboard are connected with speakers that can be placed in the orchestra pit or anywhere else in the theatre.\textsuperscript{46}

As for the actual quality of the Sinfonia’s sound, the technology has received decidedly mixed reviews. One theatre critic referred to the instrument as “wondrous” and noted that “the resulting mix sounds remarkably similar to the real thing.”\textsuperscript{47} Another described the sound produced as “fair,” with the added reservation that some of the music sounded like “calliope,” a musical instrument fitted with steam whistles.\textsuperscript{48} Even though the Sinfonia’s creators admitted that the technology handles certain sounds better than others, they remain confident that the quality of the product will improve as the technology matures.\textsuperscript{49} On the other hand, professional musicians have been far more critical of the Sinfonia’s sound. One trumpeter remarked that the trombone, trumpet, and bassoon sounds programmed into the machine “all sound like kazoos.”\textsuperscript{50} Harvey Fierstein, star of the show \textit{Hairspray}, denounced the Sinfonia as a “dead thing,” with a purpose that is antithetical to the concept of live theatre.\textsuperscript{51}

\textsuperscript{45} Id.
\textsuperscript{46} Id.
\textsuperscript{47} Paul Hodgins, \textit{Is It Live or Is It . . . ? Sinfonia’s Here to Stay}, ORANGE CO. REG. (Cal.), Apr. 4, 2004, at B1. Hodgins argues that musicians should stop fighting the Sinfonia and let the technology develop: “Musicians must accept that the Sinfonia cannot be uninvented. Producers need to see it as a welcome addition to the orchestra, not a replacement for it. And everyone needs to step back from the fray to let creativity and innovation take their inevitable course.” Id.

\textsuperscript{48} See Phillips, \textit{supra} note 7 (documenting one critic’s reaction after hearing the Sinfonia play the overture from \textit{Porgy and Bess}).

\textsuperscript{49} Id. (quoting Realtime partner Jeffrey Lazarus, “Every person that comes in this room says: ‘I love your strings, but hate that brass.’ Or ‘Love your brass, but you’ve got to work on that percussion.’ You can quibble with what works and what doesn’t. But you can’t dismiss the technology.”).

\textsuperscript{50} Id.

B. Opposing Viewpoints: Unionists vs. Producers

Members of the musicians' union have adamantly opposed the use of Sinfonia technology on two separate grounds: (1) they argue that the Sinfonia injures professional musicians by taking their jobs; and (2) they argue that the music produced by the Sinfonia is not legitimate "live" music and that it degrades the overall theatre experience. The common perception among union members is that the technology displaces live musicians by simulating the sounds of traditional acoustic instruments. This fear was seemingly bolstered when Broadway producers threatened to replace union musicians with the technology during the musicians' strike in 2003. Nonetheless, underlying the concern about job loss is a deeper concern about the sanctity of live music. A recent newspaper article concerning the opposition of the British Musicians' Union to the use of the Sinfonia led with the headline, *Musicians in the West End Don't Care About Being Sacked. They Just Want to Keep the Electronic Gizmos Out.* Other union leaders have branded the Sinfonia as a "machine that is operated" rather than a legitimate musical instrument. On repeated occasions, leaders of Local 802 have linked the Sinfonia to a broader scheme to eliminate "live" music altogether in order to reap greater profits.

The AFM has a longstanding history of opposing the latest advances in music technology in support of the perceived protection of its members. One of the union's earliest battles was fought against the use of phonograph records, which took jobs...

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52 See generally Phillips, supra note 7.
54 Chartrand, supra note 9, at C4.
55 Higgins, supra note 51, at 17.
56 Walsh, supra note 16.
away from "staff orchestras" and "casual musicians." The culmination of this campaign was a two-year recording ban, during which unionized musicians refused to appear on phonograph recordings. Despite the union's best efforts, the ban failed to eliminate or even diminish the production of phonographs. Other union efforts focused on pressuring radio stations to hire live musicians. Locals often negotiated contracts requiring stations to employ a minimum number of standby musicians even if their services were not required for the station's programming.

Contrary to the arguments of union members, producers claim that the Sinfonia (1) actually creates more opportunities for professional musicians by opening up chairs in the pit; (2) provides the audience with a superior live experience; and (3) opens up new creative opportunities. First, producers conceptualize the Sinfonia as a supplement to a core of live instrumentation rather than a replacement for live musicians. For instance, in the recent traveling production of Miss Saigon, twelve musicians performed on traditional acoustic instruments, and one musician performed on the Sinfonia. As a result, the core of twelve musicians sounded like an orchestra of twenty-eight. Producers see this as a way of getting "more bang for the buck." They argue that the Sinfonia did not eliminate the need for fifteen additional musicians, but rather the technology produced the sound of instruments that otherwise would not have been available because of financial and logistical constraints. As a result, the audience experienced a more inclusive orchestral experience.

59 Id. at 559.
60 Id. at 560–63.
61 Id. at 561.
62 Id. at 562.
63 Brown, supra note 33, at 11.
64 See generally Horiuchi, supra note 12.
65 Id.
66 Id.
67 Id. It is widely acknowledged that the standard number of live musicians employed by an off-Broadway production is three. In addition, many of these productions take place in small theatres where the orchestral pit is simply not large enough to seat a full orchestra. Id.
68 Id.
More fundamentally, the Sinfonia’s creators and proponents see the technology not as a machine designed to displace jobs but as a new musical instrument with the potential to forge novel creative avenues. Several writers and producers who have embraced Sinfonia have explicitly praised the technology as a modern artistic tool. As one of Realtime’s partners has noted:

Local 802 wants to reduce Sinfonia to something that is merely a machine. But this is only true to the same extent that other instruments are merely machines. Flutes, for example, rely on valves, pipes, levers, etc. They are machines, and require a trained musician to play them. Sinfonia, although built from modern computer-based technologies, requires no less. It would be impossible for an untrained person to play Sinfonia without any level of musical interpretation. The fallacy is seen when Sinfonia is compared to the musician; instead, the comparison should be made to the instruments being played by other musicians.

Realtime’s primary stake in the battle between unions and producers is financial: Once the union was able to extract the virtual orchestra ban from the OCB, the makers of Sinfonia feared for the financial viability of their company. This was the impetus for Realtime’s unfair labor practice charge against Local 802 under section 8(e) of the NLRA, challenging the validity of the OCB contract provision.

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69 See Part V.B (discussing The Joys of Sex and the creative possibilities presented by Sinfonia).
71 Id. (stating that Realtime specializes exclusively in virtual orchestra technology).
72 See Armbrust, supra note 18.
III. Legal Background: Section 8(e) as a Response to Growing Union Strength

A. The National Labor Relations Act

The National Labor Relations Act ("NLRA") is the primary statute governing labor relations and collective bargaining in the United States.\(^{73}\) Enacted by Congress in 1935, the NLRA is accurately characterized as one of the major legislative responses to the perils of the Great Depression.\(^{74}\) In its original incarnation, the legislation was designed to encourage collective bargaining and worker organization as a way to foster interstate commerce and spur economic recovery.\(^{75}\) The NLRA achieved this goal by giving workers the right to organize and proscribing certain forms of employer conduct in response to unionization.\(^{76}\) The legislation "placed the full power and influence of the national government behind trade unionism."\(^{77}\) The partisanship inherent in the original version of the Act would color all future debate about its validity and effectiveness.\(^{78}\) Indeed, subsequent amendments to the NLRA were aimed at neutralizing the thrust of the original legislation by placing additional restrictions on the exercise of union power.\(^{79}\)

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\(^{74}\) See ST. ANTOINE ET AL., supra note 20, at 28 (commenting on the Norris-La Guardia Act, one of the legislative precursors to the NLRA). "It was enacted at the bottom of the Great Depression. Employees were weak, ill-paid, and working under deplorable conditions. Its sponsors believed that the workers' bargaining power could be enhanced and their earnings and working conditions improved by concerted action." Id.
\(^{75}\) See id. at 30.
\(^{77}\) ST. ANTOINE ET AL., supra note 20, at 30–31 (outlining the history of the NLRA and its basic tenets).
\(^{78}\) Id. at 31. (noting that restraints were placed on employers, but not upon unions).
\(^{79}\) See id. at 39. The Taft-Hartley amendments of 1947 were passed by Congress in response to the widespread perception that unions had become too powerful under the original NLRA. Although many of the Act's core provisions were retained, the new legislation added key checks to union power, such as a prohibition on union coercion and secondary boycotts. Id.
B. Legislative History of Section 8(e)

Originally section 8(e), the so-called “hot cargo” provision, was not part of the NLRA; it was enacted in 1959 as part of the Landrum-Griffin amendments to the NLRA. With these amendments, Congress sought to curb improper conduct by unions and democratize internal union affairs. Among its contemplated concerns were the misuse of union funds, the absence of democracy in union procedures, collusive dealings between unions and management, infiltration of unions by criminal elements, and the misuse of picketing and secondary boycotts as instruments of union power. Aided by a radio and television campaign by President Eisenhower that publicized the need for “an effective labor reform bill,” the amendments to the Act were passed by Congress and signed into law on September 14, 1959. Most notably, the bill established a “bill of rights” for union members and regulated union finances and election procedures. At the time of its passage, the Landrum-Griffin bill was construed as an “anti-labor” piece of legislation: Several major unions, including the Teamsters and the United Mine Workers, vigorously opposed it. Although opponents of the legislation tied its passage to the

80 Id. at 41 (providing the historical backdrop for the passage of the Landrum-Griffin amendments).
81 Id.
82 Id. In drafting the Landrum-Griffin bill, Congress was acting on the recommendations of the McClellan Committee, which held over two years of public hearings in order to investigate improper activities in the labor relations context. Of the three bills proposed in response to the Committee’s findings, the Landrum-Griffin bill was the most restrictive of union power. Id.
83 Id. at 42.
85 Reuel E. Schiller, From Group Rights to Individual Liberties: Post-War Labor Law, Liberalism, and the Waning of Union Strength, 20 BERKELEY J. EMP. & LAB. L. 1, 60 (1999). Schiller notes how a commentator characterized the reaction of unions to the legislation as “incoherent”; while it was opposed by the Teamsters, the UMW, and the CIO unions, some leaders of AFL unions gave it lukewarm support, even while arguing it was unnecessary. Schiller also notes that, unlike the previous Taft-Hartley Act of 1947, the new legislation sought to curb union abuses by increasing individual rights of union members rather than increasing employer power or increasing NLRB supervision. Id.
efforts of Republicans and Southern Democrats to weaken unions, more recent scholarship has suggested that Landrum-Griffin was indicative of liberalism’s declining confidence in the labor movement, as well as increasing fragmentation within the movement itself.  

Unlike provisions of Landrum-Griffin intended to protect individual union members, section 8(e) was designed in part to protect third-party employers injured by contracts between unions and employers. The key language of the section provides,

It shall be an unfair labor practice for any labor organization and any employer to enter into any contract or agreement, express or implied, whereby such employer ceases or refrains from handling, using, selling, transporting, or otherwise dealing in any of the products of any other employer, or to cease doing business with any other person, and any contract or agreement entered into heretofore or hereafter containing such an agreement shall be to such extent unenforceable and void.

In basic terms, section 8(e) “prohibits unions and employers from entering into any agreement in which the employer agrees to refrain from dealing in the products of another employer or to cease doing business with another person.” The provision was designed to outlaw so-called “hot cargo” agreements, or collective bargaining clauses which provided that covered employees need not handle non-union, unfair, or struck goods of other employers. In drafting section 8(e), Congress sought “to restrict the scope of

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86 Id.


88 National Labor Relations Act, 29 U.S.C. § 158(e) (2000). The text of the clause also carves out exemptions for agreements in the construction industry involving the subcontracting of work to be done at the construction site and in the garment industry involving employers working on the goods or premises of a separate manufacturer.


90 See id. at 1746.
labor conflict to the primary parties involved in the dispute."\textsuperscript{91} The concern was that secondary activity impacting third parties would magnify the effect of labor disputes on the economy by engaging neutral employers in disputes that were not their own.\textsuperscript{92} These third party employers would suffer unfair economic loss from disputes they had no power to resolve.\textsuperscript{93}

More broadly, however, section 8(e) was intended to counteract union growth, which had climbed consistently since the passage of the original Wagner Act in 1935.\textsuperscript{94} As the labor counsel for the United States Chamber of Commerce commented shortly after the passage of the Landrum-Griffin Amendments, the new restrictions on "hot cargo" clauses and secondary activity were meant to "bring back the balance of power that the unions . . . assumed over the entire area of management-labor relations" since the NLRA was passed.\textsuperscript{95} As such, the rationale behind section 8(e) extended beyond third party effects of "hot cargo" clauses, since the provision was also meant to protect primary employers from the exercise of union power.\textsuperscript{96} For example, suppose that the Teamsters Union negotiated a contract with all trucking companies in the area stating that the companies would not require their employees to handle the goods of a furniture company engaged in a labor dispute.\textsuperscript{97} Such a clause has the potential to negatively affect the third-party furniture company, since the furniture it produces is no longer being transported by union employees. The trucking company, however, is also negatively affected, since the company is being used by the labor union as an implement to advance labor's general interests.\textsuperscript{98} The company would only agree to such a clause because it feared that if it did not, the union would be more demanding in the next round of

\textsuperscript{91} Rosenberg, supra note 87, at 141.
\textsuperscript{92} See id. at 141–42.
\textsuperscript{93} Id. at 142.
\textsuperscript{95} Id. at 190.
\textsuperscript{96} See Archibald Cox, The Landrum-Griffin Amendments to the National Labor Relations Act, 44 MINN. L. REV. 257, 258 (1959).
\textsuperscript{97} Id. at 272.
\textsuperscript{98} See id.
contract negotiations or would use the company’s failure to adhere to such an agreement as a point of leverage during strike negotiations. These were among the concerns expressed by Congress in the debate leading up to the passage of section 8(e). As Professor Archibald Cox observed, the outcry of pro-business groups like the United States Chamber of Commerce and the National Association of Manufacturers against union strength resulted in legislation designed to “strengthen the bargaining power of management in relation to labor organizations.”

C. Judicial Limitations on Section 8(e)

Despite the sweeping language of section 8(e), subsequent judicial decisions have placed crucial limitations on its scope. The leading case on the reach of section 8(e) is *National Woodwork Mfrs. Ass’n v. NLRB,* in which the Supreme Court held that the union did not violate section 8(e) by including in its collective bargaining agreement a provision stating that employees would not handle pre-fitted doors because the object of this provision was to preserve work customarily performed by union members. The Court in *National Woodwork* articulated the “work preservation” doctrine, which provides that if the object of a provision is the protection and preservation of work customarily performed by employees in a union’s bargaining unit, then it is lawful under section 8(e), even though the provision might appear to violate the literal language of section 8(e). In *National Woodwork,* the carpenters’ union negotiated a provision stating that its members would not handle pre-fabricated factory-cut doors produced by a third-party employer. The Court ruled that this “will not handle” provision was valid since it was designed to protect and preserve work customarily performed by the carpenters’ union: preparing

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99 *Id.*
100 *See id.*
101 *Id.* at 258.
102 386 U.S. 612 (1967).
103 *Id.* at 645–46.
104 *See id.*
doors for hanging prior to their installation. Justice Brennan illustrated the “work preservation” doctrine by symbolically invoking a sword and shield analogy. If the union was using the clause in question as a shield to protect preexisting jobs, the clause was presumptively valid. However, if the union was using the clause as a sword to apply pressure to a third party employer and monopolize work for union members, the clause was presumptively invalid.

Essentially, the Court in National Woodwork was faced with the task of “protect[ing] the interest of the union in exerting effective economic pressure upon an employer with whom it has a dispute and at the same time to protect[ing] neutral employers from being used as a lever to help effectuate union demands.” Because unions needed to deal effectively with employers, some activities that produced severe adverse effects on neutral employers required protection. On one level, the Court’s decision endorsed collective bargaining as a way for unions to resolve issues of technological change in the labor relations context. The decision had the immediate effect of encouraging unions to resist the introduction of prefabricated materials and products. In keeping with the broader intent of section 8(e), however, the Court’s decision also placed an important restraint on union power. While unions could use “hot cargo” clauses to protect work that had been traditionally performed by union members, they could not use these clauses to expand their reach into new areas or to exercise power beyond preexisting strongholds.

105 Id. at 635.
106 See id. at 630.
107 See id.
108 Id.
110 Id.
111 Id. at 290.
112 Id. at 289.
113 See Nat’l Woodwork Mfr. Ass’n, 386 U.S. at 630–31 (condemning union attempts to “reach out to monopolize jobs or acquire new job tasks”).
The Supreme Court also interpreted section 8(e) and the work preservation doctrine specifically in the context of technological change in the workplace. In *NLRB v. Int'l. Longshoremen Ass'n*, the Court attempted to delineate the scope of fairly claimable work that had been altered by the introduction of new technology in the shipping industry. Traditionally, longshoremen loaded and unloaded cargo from ships on to the pier piece by piece. In the period leading up to the case, however, the maritime industry began to use containers—large receptacles which could hold thousands of pounds of cargo and could be moved to or from a ship as a single unit. As a result, the role of longshoremen in handling the cargo was significantly reduced. In addition, the containers were typically loaded and unloaded by consolidation companies at off-pier premises. In response to the introduction of containerization technology and the employment of consolidation companies, the International Longshoremen Association ("ILA") negotiated an agreement with several employer associations that gave union members the exclusive right to load and unload cargo at local off-pier locations. The local off-pier consolidators, who lost work as a result of the agreement, challenged the legality of the contract provision under section 8(e).

The ILA argued that the clause was a valid work preservation agreement because the longshoremen were attempting to preserve their traditional dock loading work in the face of technological advancement. The local off-pier consolidators countered the ILA's argument by advocating a narrower view of the work traditionally performed by the longshoremen; although union employees had engaged in on-pier loading and unloading, their job did not encompass off-pier work, a job the employees had

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115 Id.
116 Id. at 495.
117 Id. at 494–95.
118 Id. at 495–96.
119 Id.
120 Id. at 498–99.
121 Id. at 500.
122 See id. at 502.
never performed. As a result, the off-pier consolidators contended that the clause was a form of work acquisition. The NLRB sided with the off-pier consolidators and invalidated the provision under section 8(e). On appeal, the Supreme Court rejected the NLRB’s position. The Court explained that when work preservation agreements result from technological changes, the definition of traditional work “requires a careful analysis of the traditional work patterns that the parties are allegedly seeking to preserve, and of how the agreement seeks to accomplish that result under the changed circumstances created by the technological advance.” Because the new off-pier work performed by the union members was “functionally related” to their traditional work, the contractual clause was a valid exercise of work preservation under section 8(e). Commentators have noted that the “functionally related work” standard articulated by the Court provided the “flexibility to accommodate work alterations caused by new technology.”

IV. Legal Analysis: Industrial Robot or Musical Instrument?

A. Realtime’s Charge Under Section 8(e)

When the Opera Company of Brooklyn (“OCB”) opened in 2000, live musicians from the AFM were hired for its first performance. During several successive performances, OCB used only the Sinfonia, played by a single musician. In January 2004, OCB hired a group of ten union musicians to play along with

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123 See id. at 506.
124 Id.
125 See generally Int’l Longshoremen’s Ass’n (AFL-CIO), 221 N.L.R.B. 956 (1975).
127 Id.
128 Id.
129 Rosenberg, supra note 87, at 157.
130 Armbrust, supra note 18.
131 Id.
the Sinfonia in *Le Nozze di Figaro*.\textsuperscript{132} Subsequently Local 802 protested the Sinfonia’s use and in February 2004 announced the contractual ban on virtual orchestral technology.\textsuperscript{133} Realtime’s unfair labor practice claim alleged that Local 802 violated section 8(e) by unlawfully restricting the use of its product. The heart of Realtime’s argument was that Local 802 never maintained a collective bargaining agreement or any prior contract with OCB.\textsuperscript{134} Therefore, no unionized musicians were under contract to perform work with OCB, and Local 802 was trying to procure new work to which its members were not traditionally entitled. In response, Local 802 argued that it was trying to preserve orchestra work previously performed by unit members.\textsuperscript{135} As evidence, Local 802 cited the fact that several live musicians were used in OCB’s first performances, only to be replaced in later performances by a lone musician playing the Sinfonia.\textsuperscript{136}

NLRB Regional Director Alvin Blyer supported Local 802’s argument. In his opinion of March 30, 2004, he wrote that

In my view, the union has a legitimate concern that unit employees could be replaced once again by Sinfonia, either on the present show or on a subsequent show, as they had been after the 2000 season. Moreover, since the employees in question have performed work in the past, and do perform the work, albeit in a reduced amount, in the current performance, it cannot be said that the union is . . . attempting to acquire work . . . .\textsuperscript{137}

On May 19, 2004, GC Arthur Rosenfeld affirmed the decision of the regional board, stating that the contract provision did not violate section 8(e) because it “had the primary and lawful

\textsuperscript{132} Id.
\textsuperscript{133} Id.
\textsuperscript{135} Armburst, *supra* note 18.
\textsuperscript{136} Id.
\textsuperscript{137} Letter from Alvin Blyer to Edward Lieber, *supra* note 19.
objective of preserving bargaining unit work” that had been performed by the union.\textsuperscript{138}

\section*{B. Analysis of the General Counsel’s Decision}

At first blush, the GC’s decision in the Realtime charge appears to be a reasonable application of the legal principles developed in \textit{National Woodwork} and \textit{Longshoremen}. Traditionally, AFM members were employed by OCB to play standard acoustic instruments during theatre productions.\textsuperscript{139} Once OCB began using the Sinfonia in its productions, these job opportunities decreased.\textsuperscript{140} Because the Sinfonia was able to recreate sounds normally associated with acoustic instruments, certain acoustic players were no longer necessary to OCB productions. In this sense, the Sinfonia functioned as a classic labor-saving device, comparable to the pre-fabricated doors received by the employer in \textit{National Woodwork}. Instead, OCB received pre-fabricated \textit{music}—the sounds that were originally produced through the effort of professional musicians now came pre-packaged as computer technology. In addition, Realtime’s claim failed to reach the level of complexity found in \textit{Longshoremen}. Unlike that case, where the introduction of technology significantly transformed the work of union members, the job duties of AFM members never changed. Musicians continued to play traditional acoustic instruments even as their job opportunities dwindled.

On one level, the GC’s reliance on earlier section 8(e) cases makes sense. Sinfonia’s role as a labor-saving device in this context is difficult to deny. Theatres have consciously employed the Sinfonia as a way to cut labor costs.\textsuperscript{141} In addition, the Sinfonia was wielded by Broadway producers during the 2003 strike as a potential strike-breaking tool.\textsuperscript{142} In addition, job opportunities for musicians did in fact decrease once the company

\begin{footnotesize}
\textsuperscript{138} Letter from Arthur F. Rosenfeld to Edward Lieber, \textit{supra} note 21.
\textsuperscript{139} Armbrust, \textit{supra} note 18.
\textsuperscript{140} Id.
\textsuperscript{141} \textit{See generally} Jarvis, \textit{supra} note 12, at G1.
\textsuperscript{142} \textit{See} Chartrand, \textit{supra} note 9, at C4.
\end{footnotesize}
used the Sinfonia. From this vantage point, it is easy to see why the GC characterized the Sinfonia as a machine designed to replace human labor—an agent of automation. Just like the employers in *National Woodwork* and *Longshoremen*, OCB arguably attempted to replace labor with "computers and industrial robots."  

What differentiates Realtime’s charge from previous cases, however, is the context. Realtime’s charge implicates artistic issues rather than traditional industrial issues. First, the Sinfonia is not an “industrial robot” analogous to a factory-built door or a massive shipping container. Although it is not a traditional acoustic instrument like a trumpet or a violin, it has its own distinctive musical attributes and requires the creative input of a live musician. Second, the artistic sector is not analogous to the industrial sector from which key section 8(e) jurisprudence has been imported by the GC. Once we acknowledge that the Sinfonia is a viable musical instrument with its own creative properties, it becomes clear that the issue is less about the allocation of industrial work and more about the allocation of musical sounds and textures. On one hand, the body of section 8(e) jurisprudence was designed to allow union members to preserve work traditionally performed by union members. On the other hand, the original intent behind section 8(e) was to protect third party employers from unwarranted intrusion and to prevent unions from expanding their reach. In this case, the AFM is using the OCB agreement as a springboard to unprecedented meddling in the theatre arts that goes far beyond mere job preservation.

The Sinfonia is not an industrial machine nor is it a tape recorder designed to play a lifeless, pre-recorded score. Most significantly, virtual orchestra technology does not produce static sounds; it requires the artistic input of a musician throughout the course of the show.  

Trevor Wishart, an English composer, argued that the development of new technology forces us to change

143 Armbrust, *supra* note 18.
144 Rosenberg, *supra* note 87, at 135.
145 See Part II.A (discussing the musical input of the Sinfonist).
our conception of what constitutes a musical instrument.\textsuperscript{146} He classified the synthesizer as a "meta-instrument": Although not a musical instrument in the traditional sense, it functioned as a universal sound producer and a potentially valuable compositional tool.\textsuperscript{147} Although the Sinfonia was not yet invented when Wishart was writing in the early-1990s, he prefigured its emergence in his discussion of "Interactive Control Structures," the use of information technology to make pre-recorded sounds responsive to live performances.\textsuperscript{148} Wishart lauded these developments as a source of potential for live performance rather than a source of degradation.\textsuperscript{149} In addition, we should not forget that "the moment that man ceased to make music with his voice alone, art became machine-ridden."\textsuperscript{150} One professor of technological history reminds us that "Orpheus' lyre was a machine, a symphony orchestra is a proper factory of artificial sounds and a piano is the most appalling contrivance of levers this side of the steam engine."\textsuperscript{151} The Sinfonia should not be dismissed as a machine rather than a legitimate musical instrument simply because its components are electronic and computer-based rather than acoustic. Rather, the Sinfonia should be construed as the latest invention in a long line of devices designed to produce musical sounds through complex technological interactions. In this context, it appears as though the decision in the \textit{Realtime} charge was based in part on the GC's own hostility toward the Sinfonia as a non-traditional source of musical accompaniment.\textsuperscript{152}


\textsuperscript{147} \textit{Id.}

\textsuperscript{148} \textit{Id.}

\textsuperscript{149} \textit{Id. at} 577.


\textsuperscript{151} \textit{Id.}

\textsuperscript{152} As one theatre critic has observed, however, new technology is often met with "howls of protest" before it is eventually accepted and used to do new, unimagined things. Phillips, \textit{supra} note 7.
Once we recognize the Sinfonia as a legitimate musical instrument, it becomes more difficult to say that live musicians are being "replaced" by its use. When composers and producers decide to use the Sinfonia, they are reconfiguring traditional musical arrangements in response to new technology rather than consciously replacing anyone. As a result, the issue should be reframed as interchanging one instrument for another instead of replacing a person with an instrument. These are the types of decisions that lie at the core of artistic sovereignty. For example, suppose a producer originally scored a show for a small string section and in the first few productions used exclusively strings. Subsequently the producer decided that strings were not appropriate for the show; instead, he chose to draft a new score featuring exclusively trumpets. Could the string-players push for a contract provision banning the producer from doing business with the trumpet company? The idea would be laughable. In evaluating the legality of such a clause, it would be inappropriate to analyze the issue in terms of "work replacement" and "work preservation." Instead the issue would be whether a producer has the right to revise and re-allocate the musical instruments used in his own production.

V. Bad for Technology, Bad For Audiences: Policy Implications of the Board’s Decision

A. Chilling Effect on Technological Advancement

The enforcement of the OCB provision will undoubtedly have a chilling effect on the willingness of inventors and intellectuals to pursue new forms of theatre-related technology. Technological innovation inevitably requires massive investment, not only in terms of monetary support but also in terms of time and ingenuity. What incentive is provided for creative minds to take risks when the outcome of their labor can be negated arbitrarily at the whim of third parties? In this context, it is important to consider the protracted genesis of the Sinfonia. The finished technology is the product of over twelve years of labor performed
by various college professors and sound engineers.\textsuperscript{153} Shunning the use of speculative, research-based knowledge, the instrument's creators meticulously developed the technology over the course of thirty-three theatre productions.\textsuperscript{154} The creators' primary impetus in creating the Sinfonia was the feedback and demands of specific performing arts groups.\textsuperscript{155} The digital scoring that takes place prior to each show in which the Sinfonia is used is also a complex, time intensive process requiring the services of a computer programmer.\textsuperscript{156} Each new production demands a new round of custom programming.\textsuperscript{157}

Of course, sustained investment and interest in synthesized orchestra technology is contingent on a single proposition—that the technology is actually put to use. The GC's recent decision endangers this proposition and discourages the prospect of future innovation.

\textbf{B. Limitations on Artistic Sovereignty}

These contract provisions inevitably limit the artistic sovereignty of authors and composers, who would normally be able to select the musical accompaniment for their productions based on carefully considered creative judgments. Where the use of the virtual orchestra is explicitly banned, a valid artistic avenue is unfairly blocked. Consider the case of \textit{The Joys of Sex}, a musical by Melissa Levis and David Weinstein, which opened at the off-Broadway Variety Arts Theatre in May 2004.\textsuperscript{158} According

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\begin{itemize}
\item Johnson, \textit{supra} note 2 (detailing the development of the Sinfonia technology).
\item Id.
\item Id.
\item See Phillips, \textit{supra} note 7 (illustrating a behind-the-scenes look at the work performed by the Realtime staff in preparation for a production).
\item Chartrand, \textit{supra} note 9, at C4 (describing the custom programming required for each production).
\item \textit{The Joys of Sex} debuted at the 2002 New York International Fringe Festival, which also hosted an earlier incarnation of Broadway's \textit{Urinetown} and the off-Broadway show \textit{Debbie Does Dallas}. Although \textit{The Joys of Sex} was not based on the 1974 how-to book with a similar title, it included songs such as \textit{Intercourse on the Internet} and \textit{The Three Way in Three Acts}. See Hofler, \textit{supra} note 13, at 55.
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to the producers, the show was scored specifically for drums, bass
guitar, and the Sinfonia.\footnote{Glanville, supra note 57. For instance, Weinstein touted the Sinfonia’s
ability to faithfully recreate the music from the Pac-Man video game in a scene
where the characters reminisced about being in eighth grade. See also Johnson, supra
note 2 (stating that the Sinfonia excels at recreating traditional sound
effects in addition to being able to recreate the sound of an orchestra).} The Sinfonia was selected for its
ability to play “special effects” and aural “tricks” beyond the scope
of traditional acoustic instruments.\footnote{Id. In the interview, Weinstein stated: “If I wanted a clarinet player, I’d get
myself a clarinet player. But I don’t want a clarinet player. I chose to use this
musical instrument because it’s what I grew up on. I know this technology.
I’ve been working in it for years and years and years.”} It was also equipped to play
the “electronic techno-pop” sounds that comprised the show’s
contemporary score.\footnote{Id. (‘‘We are talking about artistic freedom. I chose the Sinfonia to make the
show what I want it to be.’’). See also Glanville, supra note 57. Glanville
quotes the show’s producer Ben Sprecher: ‘‘We are not replacing musicians.
The show always did have three musicians and it always will have three
musicians. Am I going to let a union legislate what I can and can’t use, as long
as I’m not taking jobs? Not in a million, zillion years.”} In addition, Weinstein was familiar with
the technology used in the Sinfonia and felt comfortable using it as
a compositional tool.\footnote{Hofler, supra note 13, at 55. At an open rehearsal of the show, Hofler
reported that the three instrumentalists played in tandem, with the Sinfonia
reproducing the sound of a synthesizer and making “peculiar gurgling noise[s].”
The author of the article acknowledged that three musicians is the standard for
an off-Broadway production. Id.} Throughout its run, the show employed
three live players: a drummer, a bass guitarist, and a keyboardist
who played the Sinfonia.\footnote{Id. (“We are talking about artistic freedom. I chose the Sinfonia to make the
show what I want it to be.”). See also Glanville, supra note 57. Glanville
quotes the show’s producer Ben Sprecher: “We are not replacing musicians.
The show always did have three musicians and it always will have three
musicians. Am I going to let a union legislate what I can and can’t use, as long
as I’m not taking jobs? Not in a million, zillion years.” Id.} On various occasions, the creative
forces behind the show stated succinctly that the decision to
employ the Sinfonia was motivated by artistic, rather than
financial, concerns.\footnote{Id.} In fact, the decision to use the Sinfonia was
almost rejected by the producer of the show because of its
substantial price tag: $25,000 plus a $400 weekly rental fee.\footnote{Glanville, supra note 57.} As
one theatre critic noted, Weinstein saw the Sinfonia “not as a union
busting tool but as a legitimate instrument that offers fascinating new opportunities."\(^{166}\)

In spite of the producers’ creative intentions, Local 802 of the AFM vehemently protested the decision to use the Sinfonia in the production.\(^{167}\) David Lennon, president of Local 802, accused the show’s producers of using the show as an advertisement for Realtime Music Solutions.\(^{168}\) In addition, he described the use of the Sinfonia in an off-Broadway production as the first step in a long-term strategy to introduce the technology on Broadway.\(^{169}\) Lennon invited all musicians to rally outside of the Variety Arts Theatre every night of the performance to protest the Sinfonia’s use in the show.\(^{170}\) The continuance of the protests was averted after the Variety Arts Theatre agreed to use the Sinfonia in future performances only with permission of Local 802.\(^{171}\) The Variety Arts agreement can be seen as a precursor to the type of agreement negotiated between Local 802 and OCB. Although producers have long dealt with compromises based on union demands, the magnitude and intensity of artistic meddling in this case is unprecedented.

\(^{166}\) Hodgins, \textit{supra} note 47, at B1.  
\(^{167}\) Ironically, David Weinstein, one of the show’s co-composers, is a member of AFM’s Local 47 in Hollywood. See Walsh, \textit{supra} note 16. This fact underscores the misguided nature of the union’s attempt to dictate the form of musical accompaniment to be used in the production.  
\(^{168}\) Glanville, \textit{supra} note 57.  
\(^{169}\) \textit{Id.} Lennon was quoted as saying, “It’s obvious to us that what is really going on here is that producers are attempting to do indirectly what they weren’t able to do on Broadway last year. We believe the goal is to eliminate live music with this machine to reap greater profit.” \textit{Id.}  
\(^{170}\) Armbrust, \textit{supra} note 18. On Local 802’s website, the nightly rally was dubbed the “Rally to Save Live Music!” The website demanded that “every musician should attend this rally, and every subsequent protest.”  
\(^{171}\) Christopher Walsh, \textit{Local 802 of the American Federation of Musicians, BILLBOARD}, Apr. 24, 2004, at 8. It is important to recognize that the Variety Arts Theatre is not under jurisdiction of the standard union contract because it is an off-Broadway venue. Local 802’s ability to achieve this type of arrangement with the Theatre was a clear outgrowth of its success in attaining the OCB clause and the Board’s willingness to uphold it.
C. Financial Hardship for Producers

The Sinfonia allows production companies to present shows which would otherwise be impossible to present due to financial constraints. Consider the predicament of the North Carolina Theatre in Raleigh, North Carolina, which used the Sinfonia in its recent production of *Jekyll & Hyde* to supplement six musicians playing traditional acoustic instruments. The Theatre recently lost its yearly $100,000 grant from the city of Raleigh. In addition, it was required to start paying the city $300,000 in rent annually for its offices and $100,000 a year for its rehearsal space. In 2002, the Theatre’s net losses amounted to more than $500,000. According to the Theatre’s producers, income generated by the shows no longer paid for most of the venue’s operating costs.

Throughout its history, the North Carolina Theatre put on eighty-five shows using a full orchestra—typically twenty-two to thirty players. Recent financial pressures, however, endangered the Theatre’s future. As a last resort effort to stay afloat, producers decided to use the Sinfonia for its production of *Jekyll & Hyde*. By using the technology, producers were able to cut the show’s budget in half. Although the production faced criticism from the AFM for its use of the Sinfonia, a full orchestra production without the Sinfonia was a financial impossibility for the struggling theatre. In this case, the use of virtual orchestra technology encouraged producers to take a risk on a financially precarious production.

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173 *Id.*
174 *Id.*
175 *Id.*
176 *Id.*
177 *Id.*
178 *Id.* The original Broadway score for *Jekyll & Hyde* was written for sixteen musicians; the North Carolina Theatre production only used seven, including a Sinfonist. *Id.*
179 *Id.*
180 *Id.*
Inevitably, the AFM criticized the use of the Sinfonia as a labor-saving device. In this case, however, the use of the Sinfonia actually generated more job opportunities for live musicians since the show would not have taken place at all unless the Sinfonia was used. In other scenarios, the Sinfonia is used as a supplement to a pre-existing core of live musicians rather than as a replacement. Producers are often faced with tight budgets and limited resources with which to hire musicians. In addition, in small off-Broadway and traveling venues, orchestra pit space is often limited. Virtual orchestra technology enables producers to utilize a small group of live musicians playing traditional instruments, boosted by the sound of a Sinfonist filling in for an otherwise unfeasible full orchestra setup. The choice is not between having three traditional musicians and a Sinfonia versus ten traditional musicians. The choice is between three musicians sounding like three musicians and three musicians supplemented by a Sinfonia and sounding like a full orchestra. This is also a benefit to the audience, who would otherwise be deprived of hearing the full range of orchestral sounds.

D. The “Ossification” of Labor Law

In short, what the GC perceived to be an industrial issue was, at its core, an artistic issue. Rather than delving into the complexity of the situation, however, the GC relied on a cookie-cutter analytical framework imported from the industrial realm. This type of adherence to inapplicable precedent is not an isolated incident in NLRB jurisprudence; instead, it can be traced to broader systemic problems in American labor law. The GC’s decision in Realtime is symptomatic of what Professor Cynthia Estlund calls the “ossification of labor law,” or the inability of labor law to grow and change in accordance with surrounding legal and economic developments. The crux of Professor Estlund’s

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181 Id. Doug Brown, director of Jazz studies at Duke University and a Local 500 board member criticized the use of the virtual orchestra: “Musicians are always the ones to go first when they start thinking about how to save money.”

argument is that labor law has become increasingly irrelevant and ineffectual due to internal and external obstacles to change:

It has been cut off from revision at the national level by Congress; from "market"-driven competition by employers; from the entrepreneurial energies of individual plaintiffs and the plaintiffs' bar, and the creativity they can sometimes coax from the courts; from variation at the state or local level by representative or judicial bodies; from the winds of changing constitutional doctrine; and from emerging transnational legal norms.\textsuperscript{183}

As part of her thesis, Estlund critiques the relationship between the Board and the Supreme Court. First, she argues that the rule-making authority of the Board is limited by the constraints of language and precedent, particularly those decisions handed down by the Supreme Court. In light of earlier Supreme Court decisions concerning the NLRA, the Board has "proclaimed itself powerless to introduce greater flexibility into the Act."\textsuperscript{184} Second, she contends that the propensity of higher courts to overturn Board decisions has "strangle[d]" its ability to innovate.\textsuperscript{185} Specifically, she claims that Board innovation—departure from past Board precedent or practice—tends to initiate heightened judicial skepticism.\textsuperscript{186} As a result, the Board has shied away from exercising its rule-making authority in favor of upholding the status quo and refusing to deviate from past practice.\textsuperscript{187}

How do these criticisms apply to the GC's decision in the Realtime charge? First, the GC was handcuffed by the looming specter of National Woodwork, even though the situation at hand was markedly removed from the governing precedent of that case. Second, the GC refused to break with the traditional "industrial" perception of NLRA adjudication. Overall, the opinion in the Realtime charge evinced a lack of imagination and an unwillingness to innovate.

\textsuperscript{183} Id. at 1531.
\textsuperscript{184} Id. at 1559.
\textsuperscript{185} Id. at 1564.
\textsuperscript{186} Id. at 1565.
\textsuperscript{187} Id. at 1565–66.
VI. Conclusion

Can the NRLB correct the misapplication of law in the Realtime charge? Easily—the GC can reverse his decision in the Realtime case when the issue of virtual orchestra technology and section 8(e) comes before the GC on subsequent occasions. Unlike full Board opinions, GC decisions cannot be reviewed and carry little value as precedent.188 As a result, future GC’s can readily overturn a prior decision if the issue comes up again. Next time, however, the presiding GC is advised to look beyond the inapplicable template presented in National Woodwork and toward a new model of jurisprudence based on artistic concerns rather than industrial concerns.

188 See St. Antoine et al., supra note 20, at 60.