The Future of Work is Now

BARGAINING STRATEGIES:

From Machine Breaking to Artificial Intelligence

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I. INTRODUCTION

The Future of Work is Now. Short term and long term. We have to address it.

There is nothing new about the obvious proposition that technology is changing the workplace. The Luddites opposed mechanization in the early part of the 19th Century. They did it through industrial sabotage. They failed. There is a long history of industrial sabotage as the weapon of workers to avoid changes in the workplace. The real difference between then and now is the speed and breadth of change.

Artificial intelligence is not just on the horizon; it is already here in many forms and affects members of all unions. It affects them in two ways, which are converging. It affects the nature of business and it affects the nature of work, along with the management of workers. Not to be lost in this equation are the forces of competition, both national and transnational.

The Labor Board has faced issues about bargaining over technology, whether we call it automation, robotics, mechanization, artificial intelligence, or any other similar term. It has always delayed its reaction to these issues for years and sometimes decades. It is, in that regard, an agency which is truly ossified.

The purpose of this paper is to address how, with offensive bargaining techniques, we can respond to and be prepared for these changes in the workplace. These technological changes offer more opportunity to bargain than other changes.

The courts and legislatures are slowly facing these problems. When they do, they often ignore the rights of workers, and unions must assert and protect workers' rights.

Throughout this paper, we use various terms. We would use the term artificial intelligence shortened to "AI," but few readers would feel comfortable. It should, however, be understood that our references to technology include all forms of technological change, including automation, robotics, digitalization, and other such forms that are transforming the workplace.

Below, we first address how labor has historically approached forms of technological advancement. The historical references are to establish that techniques of resistance are ineffectual in the long term and short term. More effective is to leverage protection and change which benefits workers. We use this paper to show how unions can use bargaining techniques to obtain leverage when issues of technology are raised either by the employer or a union.

Initially for example, data breaches are becoming more and more common. Employers are subject to them. Unions have the right to bargain over the impact they may have on the privacy of their members. Employers should have to respond to requests by unions to bargain over cybersecurity issues, including seeking information on the data security measures taken by their employers. This will raise confidentiality and security issues. But certainly it is a mandatory subject of bargaining. This is just one example of the myriad of issues which can be raised.

This naturally leads to bargaining over data storage. What data is stored about employees and their work? How is it used? What controls are there? How much of the data is confidential or proprietary? Do we get to bargain about such data and its use?

II. "THE WITHDRAWAL OF EFFICIENCY" HOW THE LUDDITES AND THE WOBBLIES DEALT WITH TECHNOLOGY

A. THE LUDDITES

Luddite song:

> *And night by night when all is still*
> *And the moon is hid behind the hill,*
> *We forward march to do our will*
> *With hatchet, pike, and gun!*
> *Oh, the cropper lads for me,*
> *The gallant lads for me,*
> *Who with lusty stroke,*
> *The shear frames broke,*
> *The cropper lads for me!*[2]

The term "Luddite" applies to the English workers who are also known as "machine breakers." They arose rather suddenly in March of 1811 and were largely defeated by early 1813. There was an active period of frame breaking, which occurred for about a year between November of 1811 and the fall of 1812.

The Luddites were groups of workers located in the "Midlands" of England who, usually in small groups, would enter factories to destroy certain of the machinery used to produce cloth goods and then disappear back into the community. They were often selective and destroyed only the machinery which threatened their economic livelihood. The Luddites were a result of fear which workers in small shops had of losing their livelihood through the factory system which was developing in the Midlands. Their cloth was finished in large factories using frames operated at that time largely by water but increasingly by steam powered engines.

Luddites came to a rather abrupt halt when the English government reacted by stationing large numbers of troops in the Midlands and imposing legislation that made machine-breaking a crime punishable by death. As a result, a number of individuals identified by the government as the leaders were hung in 1812 and thereafter. The force used by the government thoroughly suppressed the Luddites, although some machine-breaking incidents continued into 1816 and 1817.

E.J. Hobsbawm, a Marxist historian, wrote a book in which he argued that Luddism was "collective bargaining by riot" and that it was a feasible alternative to collective bargaining,

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[2] Kirkpatrick Sale, *Rebels Against the Future: The Luddites And Their War On The Industrial Revolution; Lessons For The Computer Age*, 9-10 (1994). A "cropper" operates a cloth shearing machine.

which was, at that time, prohibited by English law.[3] Hobsbawm argued that this was the only rational alternative available to workers to remedy their very depressed situation in which trade unions were prohibited. Of course, the opposite side argued that the whole effort was abortive and constituted nothing more than organized rioting by workers attempting to defeat the progress of the Industrial Revolution.[4]

Luddites failed in their goal, the Industrial Revolution continued and the number of workers in factories increased dramatically after the Luddites were suppressed.

B. THE WOBBLIES

The Preamble to the Wobbly Constitution:

> The working class and the employing class have nothing in common. There can be no peace so long as hunger and want are found among millions of the working people and the few, who make up the employing class, have all the good things of life.
>
> Between these two classes a struggle must go on until the workers of the world organize as a class, take possession of the means of production, abolish the wage system, and live in harmony with the Earth.
>
> ****
>
> Instead of the conservative motto, "A fair day's wage for a fair day's work," we must inscribe on our banner the revolutionary watchword, "Abolition of the wage system."

The Wobblies believed in direct action. Melvyn Dubofsky, the author of a sympathetic history of the Wobblies, describes the Wobblies' philosophy:

> As defined by Wobblies, direct action included any step taken by workers at the point of production which improved wages, reduced hours, and bettered conditions. It encompassed conventional strikes, intermittent strikes, silent strikes, passive resistance, sabotage, and the ultimate direct-action measure: the general strike which would displace the capitalists from power and place the means of production in working-class hands.[5]

As to sabotage, Dubofsky recognized that there was a period when the Wobblies advocated sabotage. He quotes a snippet from the *Industrial Worker* in 1910:

> Grain sacks come loose and rip, nuts come off wagon wheels and loads are dumped on the way to the barn, machinery breaks down, nobody to blame, everybody innocent . . . boss decides to furnish a little inspiration in the shape of more money and shorter hours . . . just

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[3] E.J. Hobsbawm, *The Machine Breakers, Past and Present* (1952).
[4] M.I. Thomis, *The Luddites: Machine-Breaking In Regency England* (1970).
[5] Melvyn Dubofsky, *We Shall Be All* 158-59 (1969).

> try a little sabotage on the kind hearted, benevolent boss . . . and see how it works."[6]

Dubofsky describes sabotage as what we now call the "inside game":

> Repeatedly, IWW speakers asserted that sabotage simply implied soldiering on the job, playing dumb, tampering with machines without destroying them—in short simply harassing the employer to the point of granting his workers' demand. Sometimes, it was claimed, the workers could even affect sabotage through exceptional obedience: Williams and Haywood were fond of noting that Italian and French workers had on occasion tied up the national railroads simply by observing every operating rule in the work regulations.

Philip Foner, the renowned historian, portrayed the Wobblies as considerably more militant in the Fourth Volume of his history of the labor movement entitled *The Industrial Workers of the World, 1905-1917* (1965). Foner points out that the Wobblies borrowed the doctrine of sabotage from French Syndicalists and by 1910, the Wobblies included sabotage as one of the tactics to be used in class warfare. Foner points out that the Wobblies used a cartoon with a familiar emblem of sabotage "the Sab-Cat- a black cat in a wooden shoe."[7] The *Industrial Worker* contained a series of editorials, beginning in 1913, praising sabotage.

For all the Wobblies mention of sabotage, Foner also points out the contradiction in that they could never bring themselves to fully recommend sabotage as a legitimate weapon. They furthermore retreated from fully advocating that sabotage include destroying property. Sometimes they would attempt to draw a fine distinction between destroying property and disabling machinery temporarily.[8]

In 1916, Elizabeth Gurley Flynn wrote an article entitled "Sabotage." It is a wonderful explanation of the various forms of activities that we now call the "inside game" and similar activities. She characterizes all of these activities as the "withdrawal of efficiency":

> But sabotage as an instinctive defense existed long before it was ever officially recognized by any labor organization. Sabotage means primarily: *the withdrawal of efficiency.* Sabotage means either to slacken up and interfere with the quantity, or to botch in your skill and interfere with the quality, of capitalist production or to give poor service. Sabotage is not physical violence; sabotage is an internal, industrial process. It is something that is fought out within the four walls of the shop.[9]

None of these efforts stopped technology. That is the present lesson.

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[6] *Id*. at 162.
[7] *Id*. at 160.
[8] *Id*. at 161.
[9] Elizabeth Gurley Flynn, *Sabotage*, https://www.iww.org/es/history/library/Flynn/Sabotage.

C. THE PRESENT

We turn now to hackers who have access to the intranets of corporations and employers. Without causing physical harm or damage to property, they can cause a tremendous loss of efficiency, precisely what Elizabeth Gurley Flynn defined as sabotage. This is touched upon in the California Supreme Court case of *Intel Corp. v. Hamidi*, 30 Cal.4th 1342 (2003). In that case, the court did not approve of Hamidi's tactics of sending thousands of emails to Intel employees. Rather, it ruled narrowly that a trespass theory would not apply to permit injunctive relief against the abusive use of the internet by Hamidi in sending email messages to thousands of Intel employees. The court emphasized that its decision was based on a lack of showing of any security breaches and no damage to Intel's computer system, including slowing down of its functioning. The only obvious impact was the time spent by employees in deleting the unwanted (or wanted) email.

The current technological revolution is a double-edged sword. It allows employers to monitor every detail of a worker's day. On the other hand, it allows workers and their unions access to much more detail about the employer's activities. It makes both the employer and the employees more efficient. As to how the "withdrawal of efficiency" in the words of Elizabeth Gurley Flynn plays out, we will have to see.

Workers have tactics which they can use in the workplace, whether we call these tactics "work to rule," "inside game," or "slowdown," they all are designed to create a "withdrawal of efficiency." Such "withdrawal of efficiency" prompts employer responses. Those responses vary according to the nature and effectiveness of the "withdrawal of efficiency" practiced by the workers. [10]

Technology and surveillance, however, make it much easier to engage in surveillance, monitoring, and discipline. There are too many cameras and too much data for workers to engage in many tactics which worked in the past. "Withdrawal of efficiency" can be measured in keystrokes, steps, turns of the wrist and every minutiae of the workplace.

Finally, there is the inherent contradiction. Unionized employers need technology to compete and survive. Their competitors can implement and use technology without the hurdle of bargaining and without effective resistance. Employers will recognize the need to protect workers if we approach these problems. When we organize a shop or location with a large currently non-union employer, these offensive bargaining techniques offer leverage for the employer who needs change.

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[10] The D.C. Circuit dealt with an employer's concern about sabotage in *Diamond Walnut Growers, Inc. v. NLRB*, 113 F.3d 1259 (D.C. Cir. 1997) (en banc), *enforcing in part*, 316 N.L.R.B. 36 (1995). A union would have the right to bargain today about the placement of workers if the employer asserted a concern over the potential for sabotage. Then again, a union could make the following proposals: "No employee shall be disciplined for any alleged sabotage or intentional damage to employer property until after the employer has proven to a clear and convincing degree that the employee has been guilty of a prior similar act of sabotage or intentional damage to employer property within the last twelve months." While it is not likely that an employer would agree, wouldn't it have to bargain about it?

III. MANAGEMENT UNDERSTANDS THESE CHANGES AND IS PREPARING FOR THEM

We cannot ignore that union employers and non-union employers are rapidly try to adjust to these changes. We quote below from a recent report issued by one large management side law firm to its clients. Management law firms are often helpful sources in learning what management is doing.[11] Management lawyers tend to be alarmist because they think it drives clients to them. But this is an accurate description of what is in store:

> The rise of artificial intelligence (AI) and robotics will generate unprecedented opportunities and challenges for employers and workers. The accelerating pace of automation will likely lead to productivity increases on a scale not seen since the Industrial Revolution, while displacing tens of millions of American workers from their current occupations. Too often, news reports dramatically focus on AI and robots as job killers. Unfortunately, the debate over whether jobs eliminated will outnumber jobs created ignores two related and no less important questions:
>
> (1) With the fast-paced arrival of innovative and transformative technologies, will workers whose jobs are most likely to be disrupted have the skills and training required for the new jobs being created?
>
> (2) Will employers be able to fill existing vacancies as this unstoppable transformation occurs?
>
> The widely supported goal of creating meaningful, well-paying jobs is anchored in the belief that a resilient and motivated American workforce can acquire the training and skills needed to perform the jobs of the 21st century. Sadly, the needed training and vocational education programs are far too few and do not properly leverage the educational potential of modern technology. Preparing today's workforce with the knowledge and skills required to participate in the workplace of the future represents the greatest human talent challenge of the last 100 years.
>
> This Report addresses the above issues and provides a practical roadmap on how employers, industries, communities, educators, and government can work together to prepare the workforce for the coming technology-induced shockwaves while taking full advantage of the opportunities that will be created.

[11] Lawyers and law firms are not immune from these changes. *See, e.g.*, https://www.pwc.co.uk/industries/business-services/law-firms/survey/risk.html; https://www.technologyreview.com/s/609556/lawyer-bots-are-shaking-up-jobs/; https://www.law.com/2018/06/21/labor-of-law-strategizing-on-the-future-of-work-tesla-sues-ex-employee-plus-latest-moves/; and https://www.gensler.com/research-insight/gensler-research-institute/trends-in-the-legal-workplace.

Turning to the nature and timing of the workplace's ongoing technological transformation, considerable variation will occur across industries; nonetheless, the following large-scale trends are expected:

- In the medium- to long-term, productivity increases should lower costs for consumers and spur greater demand for labor across the economy as a whole.
- In the short-term, automation will displace many affected workers from their current jobs and force hundreds of millions of workers worldwide to transition to new occupations within the next 15 years.
- At the same time, some classes of workers, such as those with disabilities, will see the range of jobs available to them increase substantially as automation advances.
- Recognizing, preparing for, and confronting this *technology-induced displacement of employees* (hereinafter, "TIDE") will be the primary challenge that employers and the entire workforce will face in the coming years as automation advances.

The TIDE will disrupt the labor market and bring unprecedented challenges to industries, workers, and governments alike. By far the greatest workforce challenge will be matching human skills and capabilities with the continuously changing needs of technologically transformed workplaces and, in many cases, the redefinition of work itself. Public and private companies, organizations, governments, and educational institutions will have to address and overcome a number of structural, regulatory, and legal barriers in the American labor market that will make responding to the TIDE difficult:

- Already, there is considerable anxiety about an apparently growing "skills gap" in the labor market. The accelerating pace of technological change will make it even more challenging to find job candidates who come ready-made with the skills and training needed for the future workforce.
- Finding new work for millions of displaced workers—a daunting task in and of itself—will be made more difficult by the accelerating pace of disruptive technological change. Rapid advances in automation will make it challenging to predict where increases in demand for labor will arise in the coming years and decades.
- Given the quickening pace of automation, powered by the surge of AI and robotics in the workplace, it is likely we are entering an era when the traditional concept of a single, decades-long "career" in the same occupation—already far less common than it was a generation ago—will fall by the wayside. Workers will instead often have to switch occupational categories every few years as

automation displaces them from an increasing number of existing jobs, and retirements and cultural expectations result in a loss of workers with the necessary physical skills and capabilities.

- The United States currently lags behind other countries in the attention and resources it devotes to worker training, and in synchronizing regulatory and legal standards with the changing face of talent.

Eventually, the sheer scale and scope of automation's impact will significantly change the nature of the U.S. economy and labor market. To prepare for and overcome these challenges, most American employers— including organizations creating projects and other tasks requiring workers—will have to radically change their approach to talent planning and provide, facilitate, and encourage life-long worker training by:

- Conducting and participating in organization-specific and industry-wide talent forecasting and planning;
- Elevating the importance and status of talent planning and development;
- Identifying the need for improved and expanded lifelong learning programs;
- Implementing workplace training and partnering with trade groups, educational institutions, and worker organizations to provide workers with access to additional vocational educational resources and training opportunities both in the community and online; and
- Placing TIDE-related issues front and center on policymakers' radar including legislative, regulatory, and legal barriers and opportunities.

Individual companies will, in all likelihood, be unable to control the broad social and economic changes that technological advances will bring. Moreover, looking solely to government-subsidized programs and traditional educational institutions to provide the necessary training will almost certainly prove a woefully inadequate approach given the urgency of the TIDE's arrival and the years-long process of establishing and implementing large-scale, government-subsidized worker training programs.

America's employers and other organizations dependent upon human talent must therefore take it upon themselves to work together to put themselves and their workers in the best possible position to prepare for the TIDE, adapting and adjusting to the sweeping changes that emerging technologies promise to bring. Those that do will be able to adapt and move forward in the economy of the future. Those that do not, and instead hope that outside forces will intervene to cultivate the

skills they require, will likely find themselves unable to compete in the economy of the future.[12]

IV. ARTIFICIAL INTELLIGENCE IN THE WORKPLACE

Dramatic changes are occurring. Artificial intelligence is changing the workplace.

Teamsters only need to look around and see the vast array of technology which is presently available. One dramatic way to survey this change is to locate sources on the web which advertise immediately available applications which can transform a worksite. Here are just a few examples:

Truck Driving Technologies

1. GPS
    a. Verizon Connect – Dynamic routing software to optimize drive routes, find alternate routes around traffic and collisions. https://www.verizonconnect.com/solutions/truck-gps-navigation-software/
    b. Rand McNally – truck navigation https://www.randmcnally.com/electronics/truck
    c. CoPilot – truck navigation https://copilottruck.com/en-us/
    d. Garmin – truck navigation; optional built in dash cam https://buy.garmin.com/en-US/US/on-the-road/trucking/cOnTheRoad-cTrucking-p1.html
2. Dash Cam
    a. Averitt Express (Tennessee)
    b. Knight-Swift Transportation (Phoenix)
    c. SmartDrive – SmartSense camera monitors drivers talking on cell phones https://www.smartdrive.net/
    d. Lytx – Lytx Video Services allows fleets to stream live video; retrieve video to verify delivery is made, get evidence for disputes https://www.lytx.com/en-us/
    e. Garmin https://buy.garmin.com/en-US/US/on-the-road/trucking/cOnTheRoad-cTrucking-p1.html
3. Coaching/scoring drivers
    a. Vnomics – True Fuel (scores driver fuel-efficiency) https://www.vnomicscorp.com/
    b. Netradyne – 360 degree high definition camera views; incorporates artificial intelligence to automate driver scorecarding and coaching https://www.netradyne.com/
4. Collision Mitigation
    a. Bendix Commercial Vehicle Systems

[12] Michael J. Lotito, et al., *The Future Is Now: Workforce Opportunities and the Coming TIDE*, https://www.littler.com/publication-press/publication/future-now-workforce-opportunities-and-coming-tide (June 18, 2018).

        i. Wingman Fusion – uses radar and video to monitor road ahead; electronic stability program to protect against rollovers and loss-of-control accidents http://www.bendix.com/en/products/wingman_fusion/standard_page_4.jsp
    b. Meritor WABCO
        i. OnGuard – short-range radar to detect potential obstacles http://www.meritorwabco.com/product/OnGuard-CMS
        ii. OnSide – blind spot collision protection
    c. Drivewyze https://drivewyze.com/?referrer=utm_campaign%3DWebsite-S-EN-USA%26utm_term%3Ddrivewyze-g-c-24766679950-1t1%26utm_medium%3Dcpc%26utm_source%3Dgoogle&gclid=CjwKCAjw14rbBRB3EiwAKeoG_yE03g_5yePB1B_--9P4entVTRdqCsOsqO71ls4GicYIXyC4ayogwBoCGwkQAvD_BwE
        i. Bypass service transmits truck weight and load data to participating weigh stations and inspection sites to allow truckers to drive by
        ii. Driver Safety Notifications alert drivers when they're approaching "trouble zones."
5. Electronic Logging Devices – electronically tracking and recording drivers' hours of service
    a. Keep Truckin https://keeptruckin.com/
    b. BigRoad https://www.bigroad.com/
    c. Simple Truck ELD https://www.simpletruckeld.com/faq
    d. Garmin https://buy.garmin.com/en-US/US/p/592207
6. Trailer tracking – to locate and manage trailers
    a. MiX Telematics http://explore.mixtelematics.com/vehicle-tracking
        i. MiX Asset Manager – track shipping container or trailer
    b. BlackBerry https://us.blackberry.com/qnx-radar/trailer-chassis-and-container-tracking
        i. Radar – tracking device and analytics for managing trailer use, maintenance, etc.
    c. Spireon Inc. https://www.spireon.com/gps-trailer-tracking/
        i. FleetLocate – asset management solution
7. Loadboards & Freight Matching
    a. HaulHound – freight matching network to connect trucks and shippers https://haulhound.com/
8. Automation
    a. Daimler
        i. Freightliner Inspiration Truck - http://www.freightlinerinspiration.com/
        ii. Peloton – automated vehicle technology: radars to detect stopped or slowed vehicles, allows trucks to platoon to save fuel https://peloton-tech.com/

b. TuSimple http://www.tusimple.com/index-en.html
c. Embark https://embarktrucks.com/

Other Teamster Technologies

1. Warehouse
    a. Westfalia – automated storage and retrieval systems; warehouse execution systems https://www.westfaliausa.com/products
    b. Dimensional Weighing – In-motion cubing system provides real time package dimensions on conveyors http://www.dimensionalweighing.com/
    c. Walz – automatic strapping machines https://walzeq.com/products/mailing/shipping-solutions/strapping-machines/
2. Public Transit
    a. NAVYA and Keolis – autonomous shuttle http://www.keolisnorthamerica.com/news/keolis-navya-demo-autonomous-shuttle-and-autonom-cab-at-ces/
    b. Virgin Hyperloop One – transport passengers or cargo on a hyperloop vehicle through a low-pressure tube https://hyperloop-one.com/
    c. Personal Rapid Transit – driverless vehicle on a network of interconnected tracks https://www.railway-technology.com/projects/personal-rapid-transit/
3. Healthcare
    a. Cerebro – For Nurse staffing, app allows clinicians and hospitals to connect https://www.cerebroinc.com/
    b. Kore.ai – smart bots for healthcare facilities: connect patients to contacts, give appointment details, allow patients to refill prescriptions or pay bills, delivers test results https://kore.ai/about-kore/

Another example is the grocery industry. In this industry, the ability of competitors—both more traditional grocery industry competitors as well as new entrants into the grocery business such as Amazon and Grubhub — to take advantage of artificial intelligence, to distribute, sell, and provide to the ultimate consumer grocery and related products, is changing the very nature of the grocery industry.

In the grocery industry, there have been dramatic changes such as self-checkout, UPC codes on all products, cameras in the workplace, information gathering by companies with respect to the shopping habits of shoppers, online shopping, drone delivery and so on.

Stores will require few employees. The stores will have self-checkout, robot stocking and camera surveillance.

In warehouses, we will soon see virtually dark warehouses where there are few employees. Amazon already operates dark warehouses with few employees. Most modern distribution warehouses have automatic warehousing systems manufactured by such companies as Dematic. Probably every warehouse that delivers product to retail grocery stores has implemented some

form of artificial intelligence or automation, which has reduced the workforce and made the warehouse considerably more efficient.

The following is a list available on the internet of apps that will apply in the grocery industry. We have left in some of the references to funding particularly since some are funded by grocery industry employers. Some will affect work in the stores but all will affect grocery warehouses indirectly and directly:

Augmented/Virtual Reality Tools - These startups use augmented and virtual reality to help brands and retailers design and refine in-store promotional displays before launching them. In Context, which has raised $40M and has a long client list including Wal-Mart, Coca-Cola, AB InBev, Kellogg's, and Walgreens, lets brands visualize marketing concepts and test new designs on shoppers in virtual reality to gauge their efficacy before launch. Augment has raised $5M and aims to help brands, such as General Mills, Nestle, L'Oreal, and Coca-Cola, pitch their vending machines, kiosks, or merchandise displays to retailers by showing how they would look in augmented/virtual reality.

Beacons, Location Tracking, and Proximity Marketing - Startups such as Euclid Analytics ($43.6M in disclosed funding), RetailNext ($189M), and Swirl Networks ($32M) use beacons, sensors, and Wi-Fi signals from phones to track shoppers throughout the store and provide grocery stores with insights on foot traffic and individual shoppers. Many focus on data collection for internal analytics, such as merchandise tracking, adjusting staffing levels, monitoring promotions, etc. Some also provide proximity marketing tools. For example, Estimote provides small, colorful beacons that send push notifications to users' phones about products or promotions when it senses someone near. This category includes the most well-funded company in the graphic: RetailNext, with $189M in funding, offers traffic sensors, customer route mapping, mobile marketing, and more. These startups offer a similar use case as the In-Store Shopper Insights category (noted below). However, this category is more focused on location-based tech and tends to cater to retailers, rather than brands.

In-store Rewards - These startups give grocery stores platforms to offer rewards and cash back to in-store shoppers.

In-store Shopper Insights - These startups provide software platforms to help food and CPG brands monitor their performance at the granular store level. For example, Metabrite provides automated receipt processing to help brands understand purchasing patterns at each individual store. Index helps grocery stores offer targeted promotions and shopper insights based on in-store data.

Merchandising Tools - These startups aim to improve merchandising for grocery stores and brands. Blue Yonder uses machine learning to help stores optimize pricing and replenishment. Rangeme and Alkemics aim to connect CPG brands and stores for improved merchandising.

Food Waste Management - These startups help grocery stores and restaurants manage and reduce food waste. Enterra, with $5M in funding, collects food waste from grocers and converts it to livestock feed and fertilizer. Spoiler Alert, which raised $2.8M from investors including

Campbell Soup's Acre Venture Partners, offers a B2B marketplace to help grocers sell and donate surplus food.

Promotion Optimization - Startups such as Eversight ($25.2M in disclosed funding) track the performance of promotions to help stores and brands optimize their promotion strategies.

Store Gardens - Startups including BrightFarms set up local hydroponic farms near grocery stores and restaurants so businesses can sell sustainable, local produce. BrightFarms raised $55.4M and works with ShopRite, Wegmans, Giant, and others.

Customer Loyalty – Reward and loyalty platforms for retailers. Thirdshelf provides white-label loyalty program software, while Dealyze installs tablets by the cash register to encourage loyalty program signup and lets customers track their rewards. LevelUp lets customers pay by phone and earn rewards.

Digital & Interactive Displays – Companies that provide stores with connected digital signs to advertise products inside stores, provide shoppers with product information, or let stores adjust product pricing in real-time. For example, Ksubaka provides "playSpot" kiosks with gamification features on tablets advertising products. Ksubaka works with brands such as Coca-Cola, Nescafe, Dove, Colgate, and Kellogg's in stores throughout Asia. Enplug (over $2.5M in disclosed funding) offers digital display screens to stores and outdoor malls.

Dressing Room Tech – These startups produce technology to be used in the dressing room. Oak Labs created an interactive, touchscreen mirror that lets shoppers request new items, adjust fitting room lighting, and see outfit recommendations. The mirror can sense which products the shopper brought into the room using RFID technology, and then present related products, save the items to shoppers' online accounts, or display related items. Oak Labs has worked with retailers including Polo Ralph Lauren.

Guest Wi-Fi – Startups that enable free in-store Wi-Fi for retailers. The companies generally use the Wi-Fi to track shoppers and provide stores with customer analytics. Zenreach, for example, has raised $80M from investors including First Round Capital, Bain Capital Ventures, and 8VC. Cloud4Wi, with its Volare guest Wi-Fi and analytics platform, works with Clarks, Bulgari, Armani, Prada, and other retailers.

In-Store Bots and Chatbots – Fellow Robots and Simbe Robotics launched robots that can act as store associates, checking store shelves and guiding customers throughout the store. Fellow Robots recently launched its Navii robot in 11 Lowe's stores in California, while Simbe has tested its Tally robot in Target. Satisfi, on the other hand, provides a mobile app leveraging artificial intelligence to help shoppers in-store; it recently piloted its app in conjunction with IBM Watson in Macy's.

In-Store Financing – Startups that let shoppers instantly apply for and receive loans or installment plans while shopping in-store. Blispay, with $14M in funding from investors including NEA, lets users apply for financing on their phones while in-store.

Inventory Management – Startups that help stores to track inventory and optimize merchandising generally use cloud-based software. Some, such as Celect and Blue Yonder, also use artificial intelligence to provide predictive merchandising analytics.

Music Systems and Music Management– Startups that help stores manage their in-store music playlists. Soundtrack Your Brand is backed by Spotify.

Omnichannel Analytics – Platforms integrating in-store and e-commerce analytics for a more seamless shopper experience. For example, ShoppinPal helps retailers digitize their store and payment management and integrate inventory across brick-and-mortar and e-commerce channels. OneView Commerce aims to better engage multi-channel shoppers.

Packaging Tech – Startups that add features to product labels to provide more information for shoppers. Label Insight, which has raised $12.9M, automatically generates QR codes for CPG products, which the shopper can scan to see detailed ingredient and nutritional information.

Pop-Ups & Kiosks – Startups creating new models for the layout of physical retail. Withme, with $32.8M in funding, manages high-end pop-up shops for retailers and brands, while B8ta ($17M) operates several retail locations focused on "showrooming," a changing selection of tech products to try to help retailers benefit when shoppers view items in person and then buy online.

Shopping Cart Tech – Startups that outfit shopping carts with digital features. For example, Focal Systems aims to equip existing shopping carts with computer tablets, which can use machine vision to monitor the shelves as the cart moves through the store, and also display digital ads to the shopper.

Smart Receipts & Ratings – Startups that provide digital add-ons to the checkout process for customers in-stores. TruRating and Wyzerr solicit satisfaction ratings from shoppers at the checkout counter. FlexReceipts and Ecrebo can add personalized offers and incentives to shoppers' receipts, aiming to attract return visits.

Shelf Monitoring – Startups that help consumer packaged goods brands monitor the presentation of their merchandise on store shelves and track the results of in-store promotions and visual displays. Some rely on in-store cameras and artificial intelligence features, while others leverage crowdsourced intelligence from shoppers and store associates. For example, Repsly, with $3.5M in disclosed funding, offers a SaaS platform for field teams that captures visual data inside retail stores. Eversight, which raised $25.2M and hit a valuation of $50.8M in 2016, monitors the performance of products on shelves and uses machine learning to optimize product promotions.

Store Management/ POS Systems – Broad platforms that help retailers manage merchandise, process payments, manage employees, etc., allowing for the handling of many of the operations of the store from one application. These startups include some of the most well-funded in the category, including Lightspeed POS with $126M, and Shopkeep POS with $97.2M.

Workforce Tools – A variety of messaging tools and planning platforms for retail store staff. Branch, for example, offers internal messaging networks for retail employees,

and Salesfloor provides software that helps associates maintain consistent relationships with customers across store and online channels.

Here is a recent list of companies developing artificial intelligence apps:

Audio

Capio—language transcription and recognition
Clover Intelligence/VoiceOps— Automated monitoring of sales calls
Deepgram—transcribes insights from phone calls, video footage, and online
Gridspace—discover more customer and employee conversations
MindMeld—advanced AI to power conversational interface
Nexidia—turns customer interactions into valuable insights
Pop Up Archive—makes sound searchable
TalkIQ—critical insights about your customers conversations
Twilio—building blocks to add messaging, voice, and video to web+apps

Business Intelligence & Analytics

Arago/HIRO—optimize and automates IT and business operations
Arimo —behavioral AI for Internet of Things ("IoT")
Ayasdi—a suite of intelligent applications for enterprise
DataRobot—a range of products to improve enterprise products
Dataminr—discovers events and breaking information before the news
Electra by Lore—helps you to answer questions about your business
Einstein—a smarter Salesforce
Fuzzy AI—adds intelligent decision making to web and mobile apps
Logz.io—helps you index, search, visualize and analyze your data
NXT AI—is a framework for temporal pattern recognition and prediction
Paxata—to transform raw data into useful information automatically
Poweredby.ai—helps you monitor server bugs
Sundown—automates repetitive tasks within your business
UBIX—making complex data science easy for enterprise
Ruths.ai—helps you do more with your data
Exchange.ai—a marketplace for analytics
Owl.ai—captures, categorizes, and extracts key information from all your data
AnswerRocket—fast data insights using search
iSeek.ai—solves big data better, faster and at less cost
Ecosystem.AI—find hidden value in complex human and business ecosystems
Prix—helps to optimize pricing

Core AI

Algorithmia—a common API for many algorithms, functions, and models
Arya—workbench for neural networks
CognitiveScale—advanced industry specific ML for the enterprise
Digital Reasoning—advanced machine learning for enterprise

Fluid AI—advanced machine learning for enterprise
H2O.ai—open source machine learning and deep learning platform
Loop AI Labs—advanced machine learning for enterprise
Nervana—deep learning as computational system
Petuum—advanced machine learning for enterprise
Scaled Inference—advanced machine learning for enterprise
Sentient—range of financial, ecommerce, and digital marketing AI products
Skymind—open-source deep learning and ETL for enterprise on the JVM
Vicarious—advanced machine learning for enterprise
Voyager Labs—advanced machine learning for enterprise
PipelineAI— solves the problem of production ML and AI at scale
Ogma— building AI using neuroscience

Data Capture

Amazon Mechanical Turk—marketplace to automate simple processes
CrowdAI—automate the discovery of objects at scale
Datalogue—automatically prepare any data for immediate & compliant use
DataSift—helps structure data from social media and blog
Diffbot—automatically extract web pages as structured data
Import.io—extract data from almost any website
Playment—training data, image annotation, and more for enterprise
WorkFusion—tools for operations team to automate business processes

Data Science

BigML—single platform for all predictive use cases
CrowdFlower—helps with sentiment analysis, search relevance, and more
Dataiku—data science platform for prototype, deploy, and run at scale
DataScience—enterprise data science platform for R&D and production
Domino Data Lab—platform for collaborating, building, and deploying
Exploratory—makes DS accessible to analysts with OpenSource algorithms
Kaggle—helps you learn, work, and play with machine learning models
RapidMiner—makes data science teams more productive
Seldon—helps DS teams put machine learning models into production
SherlockML—a platform to build, test, and deploy AI algorithms
Spark—research engine, capable of discovering complex patterns in data
Tamr—makes data unification of data silos possible
Trifacta—helps put data into useful structures for analysis
Yhat—allows data scientists to deploy and update predictive models rapidly
Yseop—automate the writing of reports, websites, emails, articles, and more

Development

AnOdot—detects business incidents
Bonsai—develop more adaptive, trusted, and programmable AI models
Deckard.ai—helps predict project timelines

Fuzzy.ai—adds intelligent decision making to web and mobile apps
Gigster—connecting projects with the right team
Kite—augments your coding environment with web available knowledge
Layer 6 AI—deep learning platform for prediction and personalization
Morph—makes developing chatbots for your business easy
Ozz—make your bot smarter, by helping itself learn
RainforestQA—rapid web and mobile app testing
SignifAI—increase server uptime and predict downtime
Turtle—project management and chat software that's easy for teams
Improve.ai—automatically optimizes app content, design, pricing etc.
Gesture.ai—gesture recognition for developers
Cognitive Toolkit—trains deep learning algorithms to learn like human brain
Bonsai—abstracts away the complexity of ML libraries like TensorFlow for more effective management of AI models
Tangle—helps with decision making for designers, engineers, and leaders
Imandra—helps analyze algorithms

Internal Data

Alation—helps you work together, improve productivity, and data indexing
Cycorp—a range of different AI enterprise products
Databricks—takes the pain of cluster management away to focus on DS
Deckard.ai—helps predict project timelines
Gavagi—insight into online trends and other text analytics tools
IBM Watson—AI platform for business
Kyndi—helps knowledge workers process vast amounts of information
One Factor—SaaS AI for risk management and operations
Probot—makes your business software smarter
Sapho—helps employees with tasks and access data using micro apps
Sofia—better website analytics
eContext—structure for unstructured data
Hayley—create intelligent interactions between people, devices, and data
RelativeInsight— deep insights into customers and internal data
Rainbird—automates enterprise processes

Machine Learning

Bonsai—develop more adaptive, trusted, and programmable AI models
Cycorp—a range of different AI enterprise products
Datacratic—helps you focus your digital ad on people you want to target
deepsense.io—analyze data in the form of images, speech, text, and video
Geometric Intelligence—now a part of the Uber AI Labs
HyperScience—can do menial task work, saving time for employees
Nara Logics—platform to unite siloed data for better recommendations
SigOpt—improves machine learning models 100x faster
Amazon Machine Learn—ML-as-a-service, amongst other things
Providence—import predictive models and scale infinitely to answer existential questions

Sensor (IoT/IIoT)

Alluvium—platform delivers real-time operational insights for industry
Black—learns about shoppers behavior in your store
C3 IoT—helps to unify application development and data science
KONUX—sensor analytics solution for businesses
Imubit—machine learning for manufacturing process optimization
Maana—a range of workflow optimization products for fuel and industry
Predix—helps you develop, deploy, and operate industrial apps
Planet OS—helps renewable energy companies utilize their data better
Sight Machine—manufacturing analytics
Sentenai—automates data engineering for data science
Snips—add a voice assistant to your connected product
ThingWorx—platform to manage the development for your IoT applications
Uptake—a predictive platform for major industries
Verdigris—smart building management for commercial buildings

Text Analysis/Generation

Agolo—creates summaries from your text and information in real-time
AYLIEN—extract meaning from your text and visuals
Compreno—text analytics and mining which works without any training
Cortical.io—advanced language processing
fido.ai —automatic knowledge acquisition from text
IntroSpect by Lore—build profile and understand your users better
Lexalytics—scalable text analytics software
Luminoso—capture, measure, and act on customer feedback
MonkeyLearn—scalable API to automate text classification
Narrative Science—interprets your data into more useful information
Qeep—helps you find errors and inaccuracies in documents
spaCy—free open-source library natural of language processing in Python
Salient—automates information extraction, management, and analysis
Stride—turn text into insights
Textio—helps improve how your job ads are written
Yseop—automate the writing of reports, websites, emails, articles, and more

Vision

ABBYY—add instant text capture functionality to mobile apps and more
Achron—automated drones with vision and diagnosis capabilities
Affectiva—analyzes subtle facial expressions to identify human emotions
Algocian—makes every camera in the world smart
Angus.ai—helps cameras to detect and analyze the video feed
Birds.ai—finds defects in wind turbines
Captricity—extracts and transforms data from handwritten and typed forms
Clarifai—helps you to organize media libraries
CloudSight—high quality understanding of images within seconds

Cortica—visual analysis for medical and transport industry
Deepomatic—image detection for a range of uses and industries
DeepVision—brand and face recognition
Descartes Labs—makes satellite imagery useful
Flixsense—the first intelligent cloud video platform
FotoNation—computer vision for automotive and human detection
GrokStyle—matches similar products and helps to suggests combinations
Haystack—facial recognition
HireVue—uses facial recognition to help you decide on job candidates
Irvine Sensors—detects foreign and intentionally placed objects for security
Lunit Inc.—medical data analysis and interpretation
Matroid—recognizes different objects and things
Netra—dedicated brand recognition for social networks
Orbital Insight—satellite image analysis
Pilot.ai—a range of intelligent computer vision techniques
Pilot AI Labs—deep-learning based computer vision platform
Planet—planet monitoring and analysis using satellite imagery
Spaceknow—satellite image analysis
Sticky.ai—is an eye and emotion tracking platform
Valossa—understands and describes video content
Vidi—image analysis primarily for industrial purposes

All of these will affect the retail business at the manufacturing, distribution, and sales point.

Many companies offer various applications to manage workplace issues:

1. Tracking time worked

    a. Hubstaff
    b. Toggl
    c. Harvest
    d. Sapience
    e. Time Doctor
    f. Desk Time

2. Physical and auditory tracking

    a. Jawbone – Fitness/activity tracker, offers a feature (Up for Groups) that can be used to aggregate and monitor employee data

    b. Humanyze (formerly Sociometric Solutions) – badges gauging tone of voice, frequency contributing in meetings, body language, how often you push away from desk

    c. Hitachi – Human Big Data, wearable device with sensors that collects data on human behavior

3. Computer usage tracking

    a. Teramind
    b. Veriato
    c. Sentry PC
    d. NetVizor
    e. InterGuard
    f. WorkExaminer
    g. StaffCop
    h. WorkiQ

4. Computer/behavior tracking

    a. VoloMetrix (Microsoft) – aggregates data from employee email and calendar appointments to chart how workers are spending time and with whom

    b. Behavox – Allows financial institutions to search employee emails, texts, and voice calls to detect misconduct

5. Hygiene tracking

    a. General Sensing Limited – sensor products for health care industry, technology to monitor hand-washing practices of hospital employees

    b. HyGreen, Inc. – hand hygiene recording and reminding system for the health care industry

    c. CloudClean – Food safety compliance technology

They will affect human resources and worker management.

Someday there will be a considerably reduced need for workers in grocery stores. In fact, there may come a day when all that is needed are a few maintenance people. No keys to the store will be required. Customers will identify themselves though some form of voice, face, or smell recognition technology. We can even imagine the day when artificial intelligence will identify produce and determine when the produce is overripe and needs to be removed from the shelf. Artificial intelligence can determine the nature of the produce or other product, the price to be charged and charge it without the intervention of a person. All transactions will be electronic through some form of electronic pay system. There may come a day when there is no brick and mortar grocery, replaced instead by home delivery from warehouses.

The same is true of construction. The trend to build segments of a building off site in the modular industry will increase. New components, which will require little if any jobsite work, will be developed. Robots will be able to perform many tasks. Drones can engage in continual surveillance.

The number of apps and software available for construction is growing every day.

Here is a short list:

Construction Manager – Allows users to share maintenance logs, daily reports, project estimates and time sheets from job sites with a central headquarters; allows users to create on-site estimates for projects.

iSafe Inspections – Helps construction teams manage safety inspection programs.

Safety Meeting App – Records and tracks OSHA required safety meetings, accidents, incidents, and employee attendance.

Viewpoint for Mobile – Tracks time and productivity; allows users to take photos of progress on the job site and organize them by date, location, and job code.

Corecon Mobile – Allows users to share punch lists, project dynamics, administration, and daily logs.

Fieldwire – Allows foremen, project managers, and superintendents to work together on planning in the field; lets crews look at latest set of plans and share information.

PlanGrid – Allows contractors and architects to collaborate on project plans, specs, and photos.

JobFLEX – Allows users to deliver estimates, create and edit materials lists.

DroneDeploy – Allows users to survey a site with drone maps and 3D models.

e-Builder – Tracks multiple jobs, instant communication between field and office, manage daily inspections.

Bridgit Closeout – Share task details across teams; assign work, reporting and note-taking.

Procore – Manage daily logs, progress photos, change orders, project schedule, punch lists, meetings, time cards.

Fieldlens – Document assignments and decisions; generate daily reports; punch lists with photos and video; document safety compliance.

We could do the same for every industry.

Every union needs to begin planning. A strategy can play out at the bargaining table.

The struggle is often within the membership. There are those who will act like Luddites and oppose any changes because it threatens their jobs. In fact, that is often the most expedient approach. That is most often the approach at the bargaining table and for elected union officers that often is the most politically viable and easiest position to take.

Some unions have reacted to the threat of loss of jobs by realizing that those jobs will all go away. For example, the typographical union which does not exist anymore (except a few merged locals) negotiated when it had that leverage for lifetime jobs for the remaining typesetters. No typesetters exist anymore except as historic relics, but many of them were given lifetime jobs by newspapers, often in other settings as a condition of agreeing that the employer could eliminate typesetting.

The International Longshore and Warehouse Union recognized that ultimately much of the stevedoring work performed by its members will go away. There are already ports in Europe and elsewhere that are almost entirely automated with few stevedores. As United States ports on the West Coast modernize (and East Coast for the ILA), those stevedoring jobs will vanish. The ILWU has not solved the problem. The only thing it has been able to do is to accomplish work preservation goals so that as those jobs go away, the remaining jobs or any new jobs including jobs related to maintaining the new systems are performed by bargaining unit members. That will not solve the problem that those jobs will largely disappear.

The Musicians Union has faced the problem of digital music, synthesizers and similar forms of artificial intelligence. Fortunately, live music still exists, at least for major orchestras, theaters and in some other venues.[13]

The purpose of this paper is to argue that unions need to bargain aggressively and now about these issues to preserve what work we can. Bargaining over artificial intelligence can be a very effective weapon in gaining a first contract with an employer that recognizes it will have to implement artificial intelligence and other technological changes. Bargaining can also be an effective weapon with long-standing employers with whom the Union has had a bargaining relationship. It is necessary now not (or in addition to) later.

All of this, however, requires recognition that these legacy employers with whom the unions had a lengthy collective bargaining relationship are facing incredible competitive forces, both to implement artificial intelligence as well as to respond to the changes in the workplace.

The announcement of the partnership between Walmart and Google for the order and delivery of goods sold by Walmart may have a dramatic impact on the grocery industry. Amazon's purchase of Whole Foods had a substantial impact on stock prices. Amazon will remain a fierce competitor because of its break even strategy. It puts its price points where it can break even on sales. It does not aim to generate profit. It has created a company with a huge capitalization. Its stockholders have benefitted and been satisfied.

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[13] *See* Christopher Milazzo, *A Swan Song for Live Music?: Problems Facing the American Federation of Musicians in the Technological Age*, 13 Hofstra Lab. & Emp. L.J. 557 (1996), and Jason Leff, *Recent Development: 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) (very unfavorable article).

V. THE APPLICATION OF THE UNILATERAL CHANGE DOCTRINE TO TECHNOLOGY

A. THE BASIC PRINCIPLES REGARDING BARGAINING OVER ARTIFICIAL INTELLIGENCE ARE NOT NEW, BUT THERE ARE NEW TECHNIQUES THAT WE CAN USE TO MAKE SUCH BARGAINING MORE EFFECTIVE

In 1971, the Harvard Law Review published a note entitled "Automation and Collective Bargaining."[14] In 1981, the Santa Clara Law Review published an article "Robotics in the Workplace: the Employer's Duty to Bargain over Its Implementation and Effect on the Worker."[15] The author of that article erroneously concludes that *First National Maintenance Corp. v. NLRB*[16] changed the obligation to bargain so that automation in the workplace would generally not be a mandatory subject of collective bargaining. She concludes that, although there may be no decision bargaining obligation, there may be an effects bargaining obligation. One purpose of this part is to reject the proposition that automation is not a mandatory subject of bargaining.

There are few new papers on bargaining and technology. There are, however, discussions about whether the work preservation doctrine, as evolved under Section 8(e),[17] applies to efforts to limit subcontracting.[18] There have been discussions at attorneys' conferences like this one involving Section 8(e).

The organization of this part, then, is first to discuss the unilateral change doctrine and how it has been applied in artificial intelligence situations. There is a very persuasive argument that such implementation of technology including artificial intelligence or the threatened or possible implementation of artificial intelligence is a mandatory subject of bargaining.

The unilateral change doctrine is well understood by labor lawyers. In the basic text for the National Labor Relations Act, *Labor Law Analysis and Advocacy*,[19] the authors describe the unilateral change doctrine:

> In *NLRB v. Crompton-Highland Mills*[20] decided by the Supreme Court in 1949, the facts were these: the employer during negotiations insisted that it would not pay a wage increase beyond its last offer (or no more than one and one-half cents an hour, the dollar going a lot farther in

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[14] 84 Harv. L. Rev. 1822 (1971).
[15] Debra J. Zidich, 24 Santa Clara L. Rev. 917 (1984).
[16] 452 U.S. 666 (1981).
[17] 29 U.S.C. § 158(e).
[18] *See, for example,* Alicia Rosenberg, *Comment: Automation and the Work Preservation Doctrine: Accommodating Productivity and Job Security Interests,* 32 UCLA L. Rev. 135 (1984).
[19] Robert A. Gorman & Matthew W. Finkin, *Labor Law Analysis and Advocacy,* § 20.11 Unilateral Action (2013).
[20] 337 U.S. 217 (1949).

those days) and subsequently, without offering any more to the union or consulting it, the employer announced a wage increase for all employees greater than that offered at the bargaining table (ranging from two cents to six cents per hour). The Supreme Court held that the employer violated section 8(a)(5), affirming the finding of the Board that the employer's conduct clearly manifested bad faith and disparaged the process of collective bargaining. Good faith desire to reach an agreement with the union as exclusive representative would obviously dictate that the greater benefit actually granted the employees be first offered to the union as a predicate for a wage agreement. The employer's refusal to offer the union any more than one and one-half cents an hour constitutes a repudiation of the union by demonstrating that the employees can secure greater economic benefits in direct dealings with the employer than they can in dealing through the union.

In a major decision, *NLRB v. Katz*,[21] the Supreme Court extended the range of illegality announced in *Crompton-Highland* by modifying its rationale. In *Katz*, the employer and the union were engaged in negotiations over such matters of employee compensation as general wages, sick-leave pay and merit pay. Without notice to the union, the employer at different times during negotiations announced a new system of automatic wage increases, a change in sick-leave policy and numerous merit increases. The Board found these unilateral grants of benefits, short of impasse and without advance notice to the union, to constitute of themselves a refusal to bargain, without any specific determination (as there had been in *Compton-Highland*) that the employer was acting in bad faith. The Supreme Court enforced the Board's finding of a refusal to bargain under section 8(a)(5), which requires the parties to "meet … and confer in good faith" on mandatory subjects:

> "Clearly, the duty thus defined may be violated without a general failure of subjective good faith: for there is no occasion to consider the issue of good faith if a party has refused even to negotiate *in fact* – 'to meet … and confer' – about any of the mandatory subjects. A refusal to negotiate *in fact* as to any subject which is within § 8(d), and about which the union seeks to negotiate, violates § 8(a)(5) though the employer has every desire to reach agreement with the union upon an over-all collective agreement and earnestly and in all good faith bargains to that end. We hold that an employer's unilateral change in conditions of employment under negotiation is similarly a violation of § 8(a)(5), for it is a circumvention of

[21] 369 U.S. 736 (1962).

> the duty to negotiate which frustrates the objections of § 8(a)(5) much as does a flat refusal."
>
> The Court then showed how the employer's unilateral modification of its sick-leave plan, which might well benefit some employees in the unit and disadvantage others, would disrupt the position of the union negotiators and inhibit discussion of the issue at the bargaining table. The employer's wage increases were found to be in excess of those offered the union and thus to fall within the ban of *Crompton-Highland*; "such action is necessarily inconsistent with a sincere desire to conclude an agreement with the union." Since it was not possible to determine with certainty whether the merit-pay increases fell within the range of those customarily granted (and thus were a lawful continuation of the status quo), their grant "must be viewed as tantamount to an outright refusal to negotiate on that subject." The Court believed that the unilateral changes, without advance notice to the union and an opportunity to bargain about them, were so disruptive of orderly negotiations as to constitute a refusal to "confer" at all, and illegal without any inquiry into the employer's state of mind.

(emphasis in original).[22]

The importance of the unilateral change doctrine is that if an issue is a mandatory subject of bargaining, the employer cannot make a change without bargaining over the decision and the effects of that mandatory subject. It simply has the *per se* effect of disparaging the bargaining process.

Like every other good doctrine established by the Supreme Court, the Board and the courts have found ways to limit those concepts.

The Board has often utilized the following phraseology:

> In order for a statutory bargaining obligation to arise with respect to a particular change unilaterally implemented by an employer, such change must be a "material, substantial, and a significant" one affecting the terms and conditions of employment of bargaining unit employees. *Alamo Cement Co.*, 281 NLRB 737 (1986); *United Technologies Corp.*, 278 NLRB 306 (1986).[23]

The problematic language in this quotation is "material, substantial, and a significant" one. At first reading, it sounds like something has to have a substantial effect in the workplace before it becomes subject to the unilateral change doctrine.

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[22] Gorman & Finkin, *supra*, at 703-04.

[23] *Angelica Healthcare Servs. Grp., Inc.*, 284 N.L.R.B. 844, 853 (1987).

To workers and employers, however, virtually every change is "material, substantial, and [ ] significant"; otherwise, the change would not be made. Workers notice virtually every change in the workplace.

The Board has largely recognized this and with few exceptions has found changes in the workplace to overcome what otherwise appears to be a high hurdle to establish that a unilateral change has occurred.

In one Bush Board decision, the Board found that the movement of the production of 175 tons of steel from the union represented yard was not a mandatory subject. The Board in *North Star Steel Co.* found this because it found that the transfer of that 175 tons was not "material, substantial, and [ ] significant" because that tonnage was an "insubstantial amount of steel production."[24] Presumably, the General Counsel failed to establish the impact of the transfer of that work by showing that any particular employee lost any work.

In contrast, subcontracting the stacking of product in the shipping department reduced the work to the department inspectors and was found to be a mandatory subject of bargaining. *North Star* perhaps can be read for the proposition that there has to be some impact on the employees. It does not have to be "material, substantial, and [ ] significant." Interestingly, this is a common problem in interpreting the National Labor Relations Act. The Board will find some phraseology to define a doctrine and then be faced with subsequent cases where it requires applying the factual pattern to that expression of the doctrine. Here, it sounds like this test, consisting of three separate terms, would be a difficult barrier. As it turns out, it is not and it should not persuade us that bargaining over artificial intelligence will be prohibited.

In recent cases, the Board has found relatively less significant changes to be the subject of bargaining.[25] As the cases make it clear, it is very difficult to find some change that does not have an impact on the workplace. This is true of artificial intelligence and other technological changes.

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[24] *See N. Star Steel Co.*, 347 N.L.R.B. 1364, 1367-68 (2006).

[25] *See J & J Snack Foods Handheld Corp.*, 363 N.L.R.B. No. 21 (2015) (change in past practice of allowing employees to have test food kitchen products); *Print Fulfillment Servs.*, 361 N.L.R.B. 1243 (2014) (stricter enforcement of certain disciplinary rules for production areas); *Latino Express, Inc.*, 360 N.L.R.B. 911 (2014) (change in policy concerning financial responsibility for accidents); *Mi Pueblo Foods*, 360 N.L.R.B. 1097 (2014) (change route schedule of drivers); *Columbia Coll. Chicago*, 360 N.L.R.B. 1116 (2014) (a change affecting only a few employees can be a unilateral change); *Sprain Brook Manor Nursing Home, LLC*, 361 N.L.R.B. 607 (2014), *reaffirming* 359 N.L.R.B. 929 (2013) (ceasing to provide check cashing service at the workplace, discontinuing free physical exams at the worksite); and *N.Y. Univ.*, 363 N.L.R.B. No. 48 (2015) (de minimis impact still subject to unilateral change), *petition for review granted, N.Y. Univ. v. NLRB*, No. 15-1437, 2017 U.S. App. LEXIS 2124 (D.C. Cir. Feb. 6, 2017) (applying D.C. Circuit waiver doctrine).

VI. THE BOARD HAS FACED THE PROBLEM OF TECHNOLOGY CHANGES IN THE WORKPLACE

In broad language, the Eighth Circuit addressed this problem:

> Under § 8(a)(5) of the Act, it is an unfair labor practice for an employer to refuse to bargain collectively with the representative of his employees. The duty to bargain is defined by § 8(d) as the duty to "meet * * * and confer in good faith with respect to wages, hours, and other terms and conditions of employment." One such mandatory subject of bargaining is the impact of technological innovation on the bargaining unit. *Omaha Typographical U., No. 190 v. NLRB*, 545 F.2d 1138, 1141 (8th Cir. 1976); *NLRB v. Columbia Tribune Publishing Company*, 495 F.2d 1384, 1391 (8th Cir. 1974). It follows that refusal to discuss or refusal to discuss in good faith such changes with the union representing employees who will be affected by the innovation constitutes a § 8(a)(5) unfair labor practice. Similarly, § 8(a)(5) is violated when an employer, without first consulting a union with which it is carrying on contract negotiations, unilaterally institutes changes in conditions of employment which are in fact under discussion. *NLRB v. Katz*, 369 U.S. 736, 743, 82 S.Ct. 1107, 8 L.Ed.2d 230 (1962).
>
> It is clear that minicams are a technological innovation with the potential to profoundly affect the work of the motion picture cameramen. In view of their many advantages, it is likely that they will increasingly be employed as substitutes for motion picture cameras. The company was, therefore, obligated to bargain in good faith with IATSE over their introduction and use. See *NLRB v. Columbia Tribune Publishing Company, supra*.

Metromedia, Inc., KMBC-TV v. NLRB, 586 F.2d 1182, 1187 (8th Cir. 1978). Here, this was an easy result because it was clear that the use of minicams would have an impact on the bargaining unit.

The *Metromedia* language has been cited since then. The Board has found that such technological changes have required bargaining over the decision and the effects. Most well-known is the Board's decision in *Colgate-Palmolive Co.*[26] There, the employer implemented hidden surveillance cameras, and the Board, without much trouble, found that the installation of the cameras was a mandatory subject of bargaining. The Board focused on the fact that the cameras would potentially have an impact on discipline.

[26] 323 N.L.R.B. 515 (1997).

The union did not, however, argue that that would have an impact upon production, such as use by the employer to determine new production methods or to analyze the prior production methods. Cameras are now ubiquitous except probably in bathrooms and changing areas.[27]

New forms of artificial intelligence certainly have an impact on potential discipline issues. Employees can be monitored in the minutest aspects of their work.[28] Since *Colgate-Palmolive*, however, there have been few cases that have faced the tough questions, which will certainly arise, with the implementation of artificial intelligence.

Most of the cases have been the subject of Advice Memoranda dealing with such issues.

In *BP Exploration of Alaska, Inc.*,[29] the Division of Advice found that the implementation of vehicle data recorders ("VDRs") was a mandatory subject of bargaining. Because the implementation of the VDRs was intended by the employer to affect potential discipline, it was a relatively easy case:

> Specifically, the Employer concedes that it intends to use the data collected by the VDRs to improve enforcement and monitoring of its safe driving rules and to take corrective action against improper driving behaviors. Violations of the driving rules can result in discipline, up to and including discharge, so the VDR system plainly has the potential to affect the continued employment of employees whose driving habits are being monitored. Moreover, the use of the VDRs is not a "core entrepreneurial" concern. Thus, observing employee driving behaviors is no more entrepreneurial or relevant to the Employer's oil exploration and processing business than the surveillance cameras were to the manufacturing operation in *Colgate-Palmolive*. Accordingly, the Employer's use of VDRs to monitor employee driving behavior and compliance with Company safety rules is a mandatory subject of bargaining.[30]

The Division of Advice, however, gave the employer a potential out; it analyzed whether the installation of the VDRs was simply a substitution of a different method of computing or monitoring employee behavior. Because the VDRs collected more information, the implementation of the VDRs have a "material, substantial, and [ ] significant" impact:

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[27] A union can always ask for the location of the cameras and insist on bargaining the installation of new cameras. What about upgrades such as higher resolution, longer storage, audio?

[28] Imagine a new employer requirement that employees implant a RFID in their body to determine their work condition and whether the employer needs to accommodate a particular problem. Imagine a requirement that an employee wear a "Fitbit" or similar device. One tech company is offering employees implants instead of identification cards. PYMNTS, *Embedded Chips Lend a Hand to Unattended Retail*, https://www.pymnts.com/unattended-retail/2017/microchip-hand-implant-technology/.

[29] Case 19-CA-29566, 2005 NLRB GCM LEXIS 78, *9-19 (2005).

[30] *Id.* at *16.

> We also agree that the Employer was not free to unilaterally install the VDRs to monitor employee driving behavior, *since doing so was a significant change in the Employer's monitoring and disciplinary practices*. Thus, the installation and use of the VDRs involves more than the mere substitution of a mechanical method of monitoring employee driving behavior and rules compliance. Rather, the VDRs collect far more information about employee driving behaviors than the Employer could possibly have collected before through the personal observations and radar readings of the 2-member security force, including some information that cannot be measured at all from outside a vehicle, e.g., engine rpms and rates of acceleration and deceleration. By substituting constant electronic observation for the security officers' intermittent, occasional, personal observations and radar readings, the use of the VDRs increases greatly the chances of being disciplined. Moreover, without the ability to discuss a potential infraction with security personnel at a time close to the driving "event" in issue, employees will be disadvantaged in providing an explanation for the events in question. All of these factors demonstrate that the installation and use of the VDRs here has a "material, substantial, and significant" impact on employee working conditions. Accordingly, the Region should issue complaint, absent settlement, alleging that the unilateral installation and use of the VDRs violates Section 8(a)(5), and that the Employer must bargain . . . ." [31]

We think this decision by the Division of Advice illustrates the problem we have described above. Although the language used in the Board decisions seems to present a potentially difficult burden, most advances of artificial intelligence will be more than a mere substitution of a prior form of artificial intelligence. Most will present changes of an advanced degree and have substantially more capabilities. Thus it will be a mandatory subject of bargaining. Each upgrade will be incremental allowing employers to slowly make such changes. Employers will justify the cost of such upgrades as necessary which will support the argument that the changes are significant.

In a later Advice Memorandum, the Division of Advice found that there was no change because:

> In this case, the Employer has an established practice, to which the Union does not object, of retaining an investigator to follow employees suspected of stealing time. The information obtained by the GPS device was used in conjunction with the Private Investigator's personal observations and provides the same information that he could obtain by following the suspect Employee's truck. Indeed, on the one occasion that the Private Investigator apparently relied on the GPS, he used it only to help track the Employee when he lost sight of the truck in order to continue his personal observations. Thus, this case is

[31] *Id.* at *16-19 (emphasis added).

> closely analogous to *PPG, Inc*. Further, like the time clock in *Rust Craft Broadcasting of New York, Inc.*, the GPS device in this case merely provided a mechanical method to assist in the enforcement of an established policy.[32]

It seems it does not take much under current Board law to establish that the implementation of any form of technology is a mandatory subject of bargaining.

In *Montgomery Ward & Co.*, 288 N.L.R.B. 126 (1988), Montgomery Ward implemented a "mechanized payroll system" as a result of computerization of the payroll system. The purpose was to get a more accurate estimate of staffing needs. That purpose was "clearly a legitimate and entrepreneurial decision and well within the prerogative of management." It is important to note that the purpose was wholly managerial. However, it is important to note that there was no impact whatsoever on the employees. There is no evidence in the decision that the payroll reporting or payroll record keeping changed in any way. Thus, the Board didn't reach the question of what happens when the new system is either illegal or impacts the workers. *See Rust Craft Broad. of N.Y., Inc.*, 225 N.L.R.B. 327 (1976), where a new time clock replaced manual input. The Board found there was no change in working conditions or wages. *See also Bureau of Nat'l Affairs, Inc.*, 235 N.L.R.B. 8 (1978).

The only impact of Montgomery Ward's new mechanized payroll system was to give the employer more accurate information, which led to a policy decision to use a larger number of part time employees. The decision to use more part time employees was found to have no impact and therefore not be bargainable. Thus, these are separate issues: (1) The implementation of the mechanized payroll system; and (2) the later policy decision (based off the information gathered by the mechanized payroll system) for increased use of part time employees.

In a subsequent case, *Union Child Day Care Center, Inc.*, 304 N.L.R.B. 517 (1991), the Board *sub silentio* overruled *Montgomery Ward*. In that case, it found the implementation of a new payroll system to be a mandatory subject. In that case, there was some impact on the employees. It was not, however, a disclosure question, it was a question of whether the new payroll system had any impact on the way wages were computed.

In *Nathan Littauer Hospital Ass'n*, 229 N.L.R.B. 1122 (1977), the Board held that the unilateral implementation of a timekeeping requirement where none had previously existed violated the Act. This raises the question of whether the implementation of any new data retention, compilation, or recording would violate the Act. For example, as employers implement new systems to monitor time, motion, and work, each new data set would be bargainable if used by the employer in any way for employment purposes. Where the employee has increased responsibility for the data collection, there will be a bargaining obligation. *Vincent Indus. Plastics, Inc.*, 328 N.L.R.B. 300 (1999), *enforced in part, remanded in part*, 209 F.3d 727 (D.C. Cir. 2000).

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[32] *Shore Point Distrib. Co.*, Case 22-CA-151053, 2015 NLRB GCM LEXIS 22, *5 (2015). *See also Roadway Express, Inc.*, Case 13-CA-39940-1 (2002).

Despite the fact that most technological implementations will be a mandatory subject of bargaining, it is likely that employers will raise issues under *First National Maintenance*. There, the Court adopted a balancing test to determine whether a management decision is subject to mandatory bargaining:

> Congress did not explicitly state what issues of mutual concern to union and management it intended to exclude from mandatory bargaining. Nonetheless, in view of an employer's need for unencumbered decision-making, bargaining over management decisions that have a substantial impact on the continued availability of employment should be required only if the benefit, for labor-management relations and the collective bargaining process, outweighs the burden placed on the conduct of the business.[33]

The Court, however, specifically declined to address the issue of automation: "[W]e of course intimate no view as to other types of management decisions, such as plant relocations, sales, other kinds of subcontracting, automation, etc., which are to be considered on their particular facts."[34]

It is difficult to predict how *First National Maintenance* will play out with artificial intelligence. It is, however, plain that one of the Court's fears is that a union will delay the implementation of a management decision in order to obtain bargaining leverage. But that will always be true where there is an adverse impact upon the employees. On the other hand, in most artificial intelligence implementations, the employer has a very long lead time and can plan ahead and simply bargain. Additionally, technological changes cannot be done location by location; they have to be done company wide. This will create strategic advantages for unions which represent only a portion of the workforce, even a small portion. The union may be able to hold up the change company-wide until the employer has bargained the change with the represented employees. When the employer announces it as a *fait accompli*, it cannot rely upon the potential claim that the union will delay.[35]

The employer may argue that this will effect a substantial change in the operation and scope of the company's business, and therefore not a mandatory subject of bargaining. If a retail business were to say that it was changing its scope to eliminating customers in the store and going solely to a delivery service, that might play out as an effective response. However, most of the artificial intelligence changes will be incremental and will not affect a dramatic change in the operation or the nature of the enterprise.

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[33] 452 U.S. at 679.

[34] *Id.* at 686 n.22.

[35] Courts will be reluctant to make employers rescind such changes, particularly after some delay. In some cases, by the time the case is resolved, the technology will have moved on.

VII. THE EFFECT OF THE CHANGING LEGAL LANDSCAPE ON THE UNILATERAL CHANGE DOCTRINE

The legal landscape concerning artificial intelligence is rapidly evolving. We can expect the changes will affect the workplace in many aspects. There are immense issues beyond those affecting working conditions. Issues of privacy, data breaches, consumer protection, and taxation all will affect the workplace indirectly and directly. The question is the extent to which the employer will have an obligation to bargain when it makes a change in the workplace, alleging that it is required to do so by a change in the legal landscape.

The interplay between the requirements of federal law and bargaining obligations are often very complicated. The Supreme Court tackled this issue once again in *Murphy Oil, USA, Inc.*, 361 N.L.R.B. 774 (2014), *enforcement denied in relevant part*, 808 F.3d 1013 (5th Cir. 2015), *affirmed, Epic Sys. Corp. v. Lewis*, 138 S.Ct. 1612 (2018), and related cases.

Where an employer has in place an unlawful working condition, arguably this is a *per se* violation of the employer's obligation to bargain in good faith. The law is clear that where an employer insists on an unlawful subject, that position is a *per se* violation of the employer's obligation to bargain in good faith. This is the necessary conclusion from the Supreme Court's decision in *NLRB v. Borg-Warner Corp*., 356 U.S. 342 (1958). *See* Sec. of Lab. & Emp. L., Am. Bar Ass'n, *The Developing Labor Law* 13-31–32, 16-150–55 (John E. Higgins, Jr. *et al.* eds., 7th ed. 2017) (listing numerous illegal subjects). Therefore, changes in federal, state, and local law can affect the bargaining obligation.

It is true that some unlawful subjects are made unlawful by the National Labor Relations Act; some are made unlawful by other federal laws. For example, the provisions that are unlawful with respect to federal discrimination law, immigration, and so on, are necessarily non-mandatory. *See* Report of the General Counsel, November 20, 1996, at pp. 20–23 (discussing "insistence upon illegal subject"). Currently, employers and unions are bargaining issues raised by the Affordable Care Act and the various pension reform acts. The Board has often had to accommodate other federal laws. Whether it is immigration, bankruptcy, maritime law (mutinies); antitrust, ERISA,[36] tax laws (for remedy purposes), unemployment law, or discrimination laws, the Board cannot and has not ignored such laws. *See*, most recently, *Murphy Oil USA, Inc.*, *supra*, where the Board had to accommodate the Federal Arbitration Act.

The Board has recognized that it cannot condone violations of state law. *Am. Life & Accident Ins. Co. of Kentucky*, 123 N.L.R.B. 529, 534 (1959); *Stein Printing Co.*, 204 N.L.R.B. 17, 23 (1973); *Mead Packaging*, 273 N.L.R.B. 1451, 1456 (1985); *Alondra Nursing Home & Convalescent Hosp.*, 242 N.L.R.B. 595, 595 (1979); *Red Barn Sys., Inc.*, 224 N.L.R.B. 1586, 1598 (1976) (lawful to implement increases required by minimum wage law). *See also Garcia v. NLRB*, 785 F.2d 807 (9th Cir. 1986) (Board criticized for ignoring state law governing workplace regulation in deferring to arbitration award). The law is also clear that an employer

[36] ERISA has disclosure requirements. 29 U.S.C. § 1024. If an employer refused to provide a summary plan description to employees at the request of the union or directly to the union, it would be a refusal to bargain; the union would be entitled to bargain over the contents of the disclosures, including the summary plan description.

can unilaterally modify working conditions to comply with a clear change in law. For example, if there is an increase in minimum wage, then the employer has to increase its wages to comply with that new legal requirement. However, even if there is a new legal requirement, the employer must bargain with respect to how it is going to comply of more than one method of compliance is acceptable under the law. *See Watsonville Newspapers, LLC*, 327 N.L.R.B. 957 (1999). *See also SGS Control Servs., Inc*., 334 N.L.R.B. 858, 861 (2001). The reverse is also true; the employer must comply with applicable state law. It is also correct that there are many cases holding that insistence upon a union security clause that violates state law permitted under section 14(b) is also non-mandatory. *See* Report of the General Counsel, February 1970, at p. 11 (discussing that "insistence on union-security agreement is unlawful under state law" (citing many old cases where a union or employer bargained unlawfully over state law provisions regarding union security)).

Local laws may affect the duty to bargain. In an Advice Memorandum, the Division of Advice concluded that an employer did not have to bargain over a decision to lay off its on call drivers because the union could not have effectively bargained over the decision. *Prof'l Messenger*, Case No. 20-CA-31707-1 (Advice Memorandum dated Feb. 17, 2005). At issue in that case was the economic reality that the only concessions the union could have offered would have violated San Francisco's local minimum wage law. This illustrates, once again, how, in determining whether there is a mandatory obligation to bargain, the bargaining obligation must take into account relevant state law. *See also Quality Health Servs. of P.R., Inc.*, 358 N.L.R.B. 769 (2012) (taking into account Puerto Rico law).[37]

The Board has often been called upon to accommodate other laws affecting the workplace. It is important to keep in mind the historical context. Prior to the 1980s it was not clear whether state law affecting the workplace would be preempted. The Supreme Court only clarified this issue in the 1980s when it decided *Metropolitan Life Insurance Co. v. Massachusetts*, 471 U.S. 724 (1985), and *Fort Halifax Packing Co. v. Coyne*, 482 U.S. 1 (1987). *See* Gorman & Finkin, *supra* at Ch. 32.8. The Supreme Court made it clear that state minimum standards affecting the workplace were not preempted. California and some of the states began adopting many more statutes that affect the workplace. Even local jurisdictions have done far more than other states. *See Cal. Grocers Ass'n v. City of Los Angeles*, 52 Cal.4th 177 (2011), *cert. denied*, 565 U.S. 1178 (2012). The federal government has likewise enacted statutes that govern the workplace. *E.g.*, the Family and Medical Leave Act, 29 U.S.C. §§ 2601 *et seq*.

There are few, if any, cases involving state law issues prior to the 1990s, when it became clear that the states could implement laws affecting the workplace. There are a number of cases involving state laws related to union security, which are expressly permitted by section 14(b). As noted above, in every case where there is a conflict with state law, the Board held that an employer's position or union's position that violated state law was a non-mandatory subject. And, as noted, the Board has consistently held that where there is a conflict between a bargaining proposal and federal law, the bargaining proposal is also illegal and non-mandatory.

[37] *Noel Canning* victim, *modified and adopted*, 363 N.L.R.B. No. 164 (2016), *enforced*, 873 F.3d 375 (1st Cir. 2017).

In summary, since *Borg-Warner*, it has been and continues to be a non-mandatory subject to bargain over something that is prohibited by federal law. As state law has developed, the Board has also found that the bargaining parties are constricted and must comply with state law. However, the requirement to comply with state law does not allow employers to unilaterally implement a change when there is an alternative way to comply with the law. In *FAA Concord H, Inc. d/b/a Concord Honda*, 363 N.L.R.B. No. 136, 2016 NLRB LEXIS 152 (2016), *vacated and remanded*, *Automotive Machinists Lodge No. 1173 v. NLRB*, 2018 U.S. App. LEXIS 20146 (9th Cir. 2018), the Board addressed this situation in California where the law requires employers to pay overtime after eight hours per day (in contrast to the federal law which requires overtime after 40 hours per week). California law allows an exemption from the eight hour day for employers who conduct what is called an alternative workweek election. Concord Honda was subject to a claim by various mechanics that they were working the 4–10 work schedule without there having been a properly authorized election. The employer was thus faced with paying overtime for all hours after eight unless it conducted that election or reached an agreement with the Union with which it was bargaining a first contract to authorize overtime after ten. The law allows a union to negotiate an exception to the overtime requirement.

The employer unilaterally changed to a five-day, eight-hour schedule to avoid paying overtime premiums, asserting that it had a continuing obligation to pay overtime and this was "an exigent circumstance" allowing it to change. The Board rejected this:

> To comply with California law, the Respondent was required to pay overtime for hours worked in excess of 8 hours per day unless the schedule was adopted pursuant to a collective-bargaining agreement or a secret ballot election that conformed to certain statutory requirements. The Respondent apparently believed that it had conducted an appropriate secret ballot election authorizing a 4-10 schedule, thereby excusing it from paying daily overtime after 8 hours. In the midst of bargaining over an initial collective-bargaining agreement, however, the Union initiated an arbitration proceeding (under the Respondent's existing arbitration policy) challenging the Respondent's longstanding failure to pay daily overtime after 8 hours, arguing that the 4–10 schedule in fact had never been appropriately authorized. In response, the Respondent unilaterally changed to a 5-8 schedule, asserting that its ongoing accrual of potential liability was an exigent circumstance. But that assertion is incorrect because the Respondent was not required to continue accruing liability. The Respondent instead could have satisfied its legal obligations simply by paying overtime as required by California law, while maintaining all other terms and conditions of employment as required by the Act. See e.g., *Ideal Donut Shop*, 148 NLRB 236, 245 (1964) (employer privileged to grant wage increase where purpose was to comply with Federal minimum wage). Or, the Respondent could have negotiated an interim tentative agreement with the Union, thereby satisfying the alternative authorization mechanism provided by state law. The availability of these two alternatives demonstrates that the

> Respondent's decision to unilaterally alter employees' work schedules was not privileged by exigent circumstances.

See FAA Concord H, Inc. d/b/a Concord Honda, supra, 2016 NLRB LEXIS 152, at *4 n.3.

Because the employer had an alternative, which was to continue to pay the overtime or negotiate some interim agreement with the Union, the Board held the unilateral decision to avoid the extra payment was an unlawful unilateral change.

Where the employer is compelled to make a change by law, the employer may well have an obligation to bargain about how to implement that change. We have seen in past circumstances where, for example, states have implemented laws prohibiting smoking in the workplace. The employer is required to bargain on accommodations such as potentially a smoking area outside the workplace.

Alternatively, where the employer maintains an unlawful provision in the workplace, including affecting any form of artificial intelligence, we can reasonably take the position that the maintenance of that provision is a violation of Section 8(a)(5) and an unfair labor practice.[38]

We thus have significant opportunities as the law evolves. This can involve both statutory law as well as case law arising from federal and state legal developments affecting the workplace. As technology is regulated, this will impact the workplace and require bargaining.

VIII. THE CONTRACT WAIVER VERSUS THE CONTRACT COVERAGE DOCTRINE

This is not an arcane, irrelevant dispute. It is fundamental to collective bargaining and fundamental to technological changes that will occur. It is an opportunity to avoid giving employers the opportunity to implement changes without bargaining and to leverage concessions.

Under the contract waiver doctrine, the union only waives its right to bargain over a subject during the term of the agreement if that waiver can be found in "clear and unmistakable terms." Under the contract coverage analysis a management right's clause will be deemed to cover the dispute and thus relieve the employer of the obligation to bargain over that subject during the life of the agreement. If the management rights clause specifically addresses the subject this will serve in the view of the contract coverage doctrine to act like the "clear and unmistakable waiver.

In essence, a collective bargaining agreement is meant to be a waiver of the right of both parties to bargain during the term of the agreement. The agreement is supposed to set out the shop rules governing their future relations for the period of the agreement.

[38] Many of these provisions may also violate Section 8(a)(1) because they interfere with Section 7 rights. For the purposes of our discussion here, however, the maintenance of these provisions is analyzed in the context of violating Section 8(a)(5).

This somewhat obvious proposition has resulted in a long-standing split between the Labor Board's application of this concept and that of the D.C. Circuit. *See* Gorman & Finkin, *supra*, at Section 20.16.

Thus, the Labor Board has long held that a waiver of the statutory right to bargain will not be readily inferred. The waiver must be "clear and unmistakable." Even the Supreme Court has endorsed that test. *See Metro. Edison Co. v. NLRB*, 460 U.S. 693 (1983).

Whether there is a waiver that is clear and mistakable depends upon various factors and relates to the context in which it arises. The waiver will normally depend upon such things as the intention of the parties and the language of the contract, as well as practices under the contract.[39]

Although the Board has consistently reaffirmed the clear and unmistakable waiver doctrine, it has not always broadly interpreted that waiver. Depending upon the composition of the Board, the waiver will be more narrowly interpreted with the current Republican Board and more broadly interpreted with a Democratic Board.

Opposed to this, however, is the long-standing view of the D.C. Circuit, which has adopted a contrarian view, relying on the same principles. In the D.C. Circuit's view, there is a doctrine called "contract coverage." This simply means that if the management rights clause (or zipper clause or similar clause) "covers" the dispute, then the contract speaks to the dispute and the employer's action (or the union's action) is covered by the contract and there is no need to bargain.

It is well worth re-reading the Board's careful statement of this dispute and the Board's rationale in a two-to-one decision issued in *Provena Hospitals*, 350 N.L.R.B. 808 (2007).

> The waiver standard is based on the long-established proposition that the duty to bargain created by Section 8(a)(5) of the Act continues during the term of a collective-bargaining agreement. See *Jacobs Mfg. Co.*, 94 NLRB 1214, 1217-1218 (1951), *enfd*. 196 F.2d 680 (2d Cir. 1952). See also *Proctor Mfg. Corp.*, 131 NLRB 1166, 1170 (1961) (reading management-rights clause broadly would "disregard 'the familiar concept of collective bargaining as a continuing and developing process'") (internal citation omitted).
>
> Accordingly, a union has the statutory right to require an employer to bargain before making a unilateral change with respect to a term or condition of employment. Conversely, the employer's authority to act unilaterally is predicated on the union's waiver of its right to insist on bargaining.
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> The clear-and-unmistakable waiver standard, then, requires bargaining partners to unequivocally and specifically express their mutual

[39] We do not address the deferral issue, which may arise in many contexts.

> intention to permit unilateral employer action with respect to a particular employment term, notwithstanding the statutory duty to bargain that would otherwise apply. The standard reflects the Board's policy choice, grounded in the Act, in favor of collective bargaining concerning changes in working conditions that might precipitate labor disputes.
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> ***
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> There can be no dispute, then, that the Board's traditional waiver standard is exceptionally well established. The venerable age of the standard, coupled with its approval by the Supreme Court, makes a powerful case for *stare decisis*. But the dissent would have the Board break with its own precedent and turn to the "contract-coverage" standard devised by the United States Court of Appeals for the District of Columbia Circuit and followed by the Seventh Circuit, despite the fact that earlier decisions of those same courts, never reversed, applied the waiver standard. Indeed, in a decision predating its enunciation of the "contract-coverage" standard, the District of Columbia Circuit criticized the Board for *failing* to follow its waiver standard. *Road Sprinkler Fitters Local Union No. 669 v. NLRB*, 600 F.2d 918, 922-923 (D.C. Cir. 1979). The court observed that it would "not allow an administrative agency to abandon its past principles without reasoned analysis." *Id*. at 923. Accordingly, it required the Board to "explain[] why the waiver standard should be changed, and how the new standard furthers the agency's statutory mandate." *Id*. We can discern neither persuasive reasons for abandoning the waiver standard, nor evidence that a different approach would further the Board's statutory mandate.

Provena Hosps., 350 N.L.R.B. 808, 811, 812-13. *Provena* was a Bush Board decision in which then-Chairman Battista dissented.[40]

However, in many cases employers raise this issue because they then can file a Petition for Review in the D.C. Circuit or Seventh Circuit and have that court apply that doctrine.[41] It is likely that this Republican majority Board could reverse *Provena* and the numerous cases that have adhered to it since then and adopt the D.C. Circuit's contract coverage doctrine.

There is also another aspect to this same doctrine. That is the contract modification doctrine where the employer (or union) modifies the contract in violation of Section 8(d). 29 U.S.C. § 158(d). A different standard applies in that situation.

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[40] *Provena Hospitals* came out just before the string of horrible Bush decisions known as the "September massacre."

[41] 28 U.S.C. § 2112. This is a reminder of the importance of a charging party being aggrieved so that it can file a petition for review in a more friendly circuit.

Where there is an assertion that the employer modified the contract, the employer may defend by arguing that its actions had a "sound arguable basis" in the contract. *See Am. Elec. Power*, 362 N.L.R.B. No. 92 (2015); *Bath Iron Works Corp.*, 345 N.L.R.B. 499, 501-02 (2005), *aff'd sub nom. Bath Marine Draftsmen's Assn. v. NLRB*, 475 F.3d 14 (1st Cir. 2007); *Phelps Dodge Magnet Wire Corp.*, 346 N.L.R.B. 949 (2006); *Thermo Electron Corp*., 287 N.L.R.B. 820 (1987); *NCR Corp*., 271 N.L.R.B. 1212, 1213 (1984); and *Kirchhoff Van-Rob*, 365 N.L.R.B. No. 97 (2017).

Once again, the Republicans have broadly interpreted an employer's assertion of "sound arguable basis," while the Democrats have narrowly interpreted the contract language. Nonetheless, the doctrine has not been disturbed since 1984.

Finally, an issue arises after the contract has expired. The question after the contract has expired is the extent to which the management rights clause (or other waiver clause such as a zipper clause) permits an employer to make a unilateral change. In 2016, the Board issued a decision addressing this. *E.I. DuPont de Nemours*, 364 N.L.R.B. No. 113 (2016). The Board overturned Bush Board precedent that had held that an employer could raise a "past practice" defense where it makes changes after the collective bargaining agreement has expired where it was privileged to make those changes during the term of the agreement. The Board, relying on other cases, made it clear that with a management rights clause, the employer has waived its right to discretionary unilateral changes only during the duration of the contract containing the management rights clause. This overrules the *Courier Journal* case, 342 N.L.R.B. 1093 (2004), in which the employer had made regular unilateral changes in its healthcare program and the Board found that it could continue to make such changes after the contract had expired.

E.I. DuPont de Nemours was recently overruled in *Raytheon Network Centric Systems*, 365 N.L.R.B. No. 161 (2017). Nonetheless, these cases offer an important lesson for bargaining with respect to technology. Now, unions can and should insist on bargaining over every past practice or current practice. In technology, this means every innovation, change in application or program no matter how minor. Employers cannot so easily insist that the change has no impact since under *Raytheon* they can assert that the practice of innovation may excuse their obligation to bargain.

As we discuss below, employers will rely upon an effort to obtain a broader waiver in many forms using the contract coverage or waiver analysis. This will open the door to much effective bargaining.[42] In effect, we turn the doctrine around and claim the right to bargain everything which might remotely be covered by the *Raytheon* waiver or any waiver.

[42] Chairman Miscimarra found that a handbook provision could not be covered by the contract coverage analysis because it was not negotiated. He thus did not reach the question of whether a handbook provision which had been collectively bargained could constitute a waiver. *See Tramont Mfg., LLC*, 365 N.L.R.B. No. 59, 2017 NLRB LEXIS 163, *8 n.6 (2017). In that case, like other cases, the Board went to great lengths to explain why, even under the contract coverage analysis, the Board would find violation, anticipating that that case as well as other cases could end up in the D.C. Circuit or the Seventh Circuit.

Increasingly we will be faced with employers who demand broad management rights clauses, zipper clauses or other waiver clauses so that they can implement changes during the life of the agreement or after the agreement expires. Recognizing the differences in these doctrines, employers will seek to provide maximum flexibility, particularly with respect to artificial intelligence.

There is an effective bargaining response. The bargaining response is simply to say that if the employer wants that flexibility, the union is prepared to agree to it, but the union needs to bargain in advance over any potential flexibility which the employer needs.

This issue can be framed as follows with the following proposal from a union:

> The parties to this agreement recognize that technology, including artificial intelligence, automation, robotics, and other technologies designed to increase productivity, may change during the life of this agreement and during the negotiations of any subsequent agreement. The parties agree that the contract "coverage" doctrine espoused by the D.C. Circuit and other circuits will not apply to this contract. They agree that with respect to such issues that the Union has waived its right to bargain only if there is a clear and express waiver of that right. The parties furthermore agree that they have not entered into any "clear and express" waiver of any issue concerning technology or any related issue.

This will force the issue. It is unlikely any employer will agree to this. When the employer refuses, then the Union can insist on bargaining every potential technological issue that may affect the workplace during the term of the agreement. The reason the language contains a reference to negotiations for further agreements, is to deal with the D.C. Circuit's restrictive interpretation of waiver issues during the period after a contract has expired.

Raytheon can be addressed with the following proposal:

> The parties to this agreement recognize that technology, including artificial intelligence, automation, robotics, and other technologies designed to increase productivity, may change during the life of this agreement and during the negotiations of any subsequent agreement. Such changes may be incremental and small. The parties agree that the practice or past practice waiver or right reflect in *Raytheon Network Centric Systems*, 365 NLRB No. 161 (2017) shall not apply. They agree that with respect to such issues that the Union has waived its right to bargain only if there is a clear and express waiver of that right. The parties furthermore agree that they have not entered into any "clear and express" waiver of any issue concerning technology or any related issue including the right to bargain in light any asserted past practice.

The parties could agree to the following language:

> The parties agree that nothing in this agreement shall be construed as a waiver of the Union's right to bargain over any changes which concern, mention or relate to working conditions once the agreement has expired. The parties expressly reject the doctrine of the D.C. Circuit in *E. I. du Pont de Nemours*, and the NLRB in *Raytheon Network Centric Systems*, 365 NLRB No. 161 (2017) and other cases. The employer agrees it will not rely on any alleged past practice to effect a waiver of the Union's right to bargain over any changes which may occur in working conditions once the contract has expired and the parties are in negotiations. Nothing shall preclude the Union from relying on past practice.

This is a different approach from the typical approach which is an effort to limit the management rights clause or to provide that the contract provides no waiver of the rights of the union.

One typical union response would be language such as:

> Nothing herein shall be construed as a waiver of any right the Union has under the National Labor Relations Act, including but not limited to the right to negotiate over any mandatory subject of bargaining, including the decision and effects. The employer agrees it will make no changes whatsoever in wages, hours, or working conditions or any matter related to wages, hours, or working conditions without first bargaining with the Union or without obtaining the Union's agreement to such change, unless expressly allowed under the terms of this Agreement. The employer agrees to bargain over any changes no matter how insubstantial or small and will not be constrained by whether the change is material, substantial, and/or significant.

Employers are not likely to agree to that language. They are more likely to propose the following:

> Except as set forth in this Agreement, the Employer retains the exclusive right to manage the business, to direct and control the business and workforce, to make any and all decisions affecting the business, and to take actions necessary to carry out its business, including, but not limited to the following: the exclusive right to plan, determine, direct, and control the nature and extent of all its operations and commitments; to determine the methods, procedures, materials, and operations to be used or to discontinue or to modify their use by employees of the Employer or others; to install, alter, relocate, upgrade, introduce, consolidate, or remove any new or improved service methods, work procedures, facilities, equipment, technology, and to maintain efficient operations; to contract or subcontract bargaining unit work; to expand the business operations by acquisition, merger, or other means; to discontinue the operation of the Employer, the right to change any aspect of the operations through automation,

> robotics or artificial intelligence, including, but not limited to, by sale of its stock or assets, in whole or in part, or otherwise, at any time; to discontinue, reorganize, or combine any department or branch of operations; and in all respects to carry out, in addition, the ordinary and customary functions of management, whether exercised or not.

We have all seen management rights clauses like this or management rights clauses that are much broader.

An alternative approach is to advise the employer that the union is willing to agree to a management rights clause, subject to an opportunity to bargain over any potential event including a technology related event that may occur during the life of the agreement or after the agreement has expired. An appropriate response is then to insist that the employer bargain over the potential implementation of any form of technology no matter how remote or unlikely. If the employer responds it has no intention of installing or using that technology, reach an agreement that it will not do so and then, under section 8(d) insist that that this agreement be reduced to writing.

Moreover, if the employer asserts that the decision will have no impact on the employees, it becomes a non-mandatory subject of bargaining. For example, in the above language the employer may assert that it does not have to bargain over "sale of its stock." Then it is a non-mandatory subject and should be taken out of the management rights clause. The same is true of "expand the business operations by acquisition, merger, or other means." If the employer insists on the need for it, then the union can ask for financial data. The union will not be entitled to the information if it is non-mandatory.

IX. THE USE OF INFORMATION REQUESTS TO BARGAIN OVER TECHNOLOGY

A. THE GENERAL STANDARD FOR PROVIDING INFORMATION

The broad legal standard with respect to information is as follows:

> Section 8(a) (5) of the Act mandates that an employer must provide a union with relevant information that is necessary for the proper performance of its duties as the exclusive bargaining representative. *NLRB v. Truitt Mfg. Co.*, 351 U.S. 149, 153, 76 S.Ct. 753, 100 L. Ed. 1027 (1956); *Detroit Edison Co. v. NLRB*, 440 U.S. 301, 303, 99 S.Ct. 1123, 59 L. Ed. 2d 333 (1979). "[T]he duty to bargain unquestionably extends beyond the period of contract negotiations and applies to labor-management relations during the term of an agreement." *NLRB v. Acme Industrial Co.*, 385 U.S. 432, 436, 87 S.Ct. 565, 17 L. Ed. 2d 495 (1967). Information requests regarding bargaining unit employees' terms and conditions of employment are "presumptively relevant" and must be provided. *Whitesell Corp*., 352 NLRB 1196, 1197 (2008), adopted by a three-member Board, 355 NLRB 635 (2010), enfd. 638 F.3d 883 (8th Cir. 2011); *Southern California Gas Co*.,

> 344 NLRB 231, 235 (2005). If the requested information is not directly related to the bargaining unit, the information is not presumptively relevant, and the requesting party has the burden of establishing the relevance of the requested material. *Disneyland Park*, 350 NLRB 1256, 1257 (2007); *Earthgrains Co.*, 349 NLRB 389 (2007).
>
> The standard for establishing relevancy is the liberal, "discovery-type standard." *Alcan Rolled Products*, 358 NLRB 37, 40 (2012), citing and quoting applicable authorities. In *Leland Stanford Junior University*, 307 NLRB 75, 80 (1992), the Board summarized its application of the principles as follows:
>
> > [T]he Board has long held that Section 8(a)(5) of the Act obligates an employer to furnish requested information which is potentially relevant to the processing of grievances. An actual grievance need not be pending nor must the requested information clearly dispose of the grievance. It is sufficient if the requested information is potentially relevant to a determination as to the merits of a grievance or an evaluation as to whether a grievance should be pursued. *United Technologies Corp.*, 274 NLRB 504 (1985); *TRW, Inc.*, 202 NLRB 729, 731.
>
> The requested information does not have to be dispositive of the issue for which it is sought, but only has to have some relation to it. *Pennsylvania Power & Light Co*., 301 NLRB 1104, 1104-1105 (1991). The Board has also held that a union may make a request for information in writing or orally. Further, the Board has found that a delay is unreasonable when the information requested is easily and readily accessible from an employer's files. *Bundy Corp*., 292 NLRB 671, 672 (1989).

U.S. Postal Serv., 365 N.L.R.B. No. 51, 2017 NLRB LEXIS 130, at *19-21 (2017).[43]

B. THE USE OF THE RIGHT TO OBTAIN INFORMATION IN THE TECHNOLOGY SETTING

Asking for information about technology will be a powerful tool. But it will be met with efforts by management to resist such requests.

One of the anticipated issues that the employer may raise is the argument that the information is not relevant to the current bargaining employees because there is no artificial intelligence which

[43] We sometimes note that cases are cited that are constitutionally infirm. In this case, the ALJ cited *Alcan Rolled Products*, which, as the Board references in the footnotes in the decision, was issued by a constitutionally infirm Board.

would presently affect the employees. If that is their position, arguably it is not relevant. On the other hand, this forces the employer to then commit that the issue about which the union wants to bargain will not affect the employees during the life of the agreement or during any period during which the union is negotiating a new agreement. The union could propose the following language:

> The employer agrees that it no technology implemented or change by the employer will have any affect not matter how small, as judged in the discretion of the union, during the term of this agreement and extending to any period after the contract has expired. If the employer disputes the union's position that the technology has had an impact, the employer will bear the burden of proof in any arbitration. The union has the choice of any appropriate remedy including rescission of the change.

We recognize that achieving this language may not be easy but it forces the employer who resists to bargain over any change or to withdraw any proposed waiver.

This principle about bargaining over disclosure can be illustrated by a recent Board case in which the employer asserted that the union had waived its right to seek the information since it didn't make a proposal in negotiations that the information be provided during the life of the agreement:

> Next, the Respondent implies that the Union's failure to submit a "contractor list disclosure" proposal during contract negotiations constituted a waiver of its right to the requested information. Nonetheless, I agree with the General Counsel's argument and find that the Union's failure to submit a "contractor list disclosure" proposal during contract negotiations did not constitute a waiver of the Union's statutory rights. The Board requires a waiver of a union's statutory rights to be clear and unmistakable. *Metropolitan Edison Co. v. NLRB*, 460 U.S. 693, 103 S. Ct. 1467, 75 L. Ed. 2d 387 (1983); *Timken Roller Bearing Co*., 138 NLRB 15, 16 (1962). "A clear and unmistakable waiver may be found in the express language and structure of the collective-bargaining agreement or by the course of conduct of the parties. The burden is on the party asserting waiver to establish that such a waiver was intended." *Leland Stanford Junior University*, *supra*. See also *NLRB v. New York Telephone Co*., 930 F.2d 1009 (2d Cir. 1991), *enfg*. 299 NLRB 351 (1990); *United Technologies Corp*., *supra*. Given the lack of a clear and express waiver in the CBA or elsewhere, I find that the evidence shows the Respondent has failed to sustain its burden on this point.

Sho-Me Power Elec. Coop., 360 N.L.R.B. 349, 354 (2014).

Another issue that often arises is the employer may assert that the information is not available to it since it is in the possession of a third party. The Board has dealt with that issue and did so in *Sho-Me Power*:

> The Respondent argues that it is unable to provide the Union with the requested information because it is unavailable. In addition, the Respondent notes that approximately 3 months prior to the Union's August 7 request for information, it had provided the Union with 6 years of contractor information for its use in preparation for contract negotiations. (R. Br. 13; Tr. 50.) The Respondent's argument fails on both points. Gunn admitted that she did not contact any of the Respondent's contractors or any subcontractors to obtain the information. Likewise, there is no evidence that any other agent of the Respondent tried to get the requested information from the contractors or subcontractors. (Tr. 62-63.) The Board has held that if the requested information is not in the respondent's possession then it has a duty to inform the union and make a "good-faith" attempt to get information, or if unavailable, explain or document the reasons why it is unavailable. *Public Service Co. of Colorado*, 301 NLRB 238 (1991). See *Earthgrains Co.*, 349 NLRB 389 (2007), *enfd. in part and denied in part sub nom. Sara Lee Bakery Group, Inc. v. NLRB*, 514 F.3d 422, 430 (5th Cir. 2008) (although the employer did not retain the records, the employer "utterly failed to conduct a good-faith inquiry" to determine if the information was available from other sources).

Id. at 355.

This offers additional opportunities to bargain. For example, if the employer asserts that the information is only in the possession of a third party, the employer has an obligation to make an effort to at least obtain the information. If the employer is unable to obtain it, then the union should ask for the name or names of the contact persons. The union can furthermore determine what information the employer actually has, as opposed to what information it asserts is only available from the third party.

C. CONFIDENTIALITY ASSERTIONS CONCERNING INFORMATION

The employer's duty to offer to bargain over accommodating confidentiality concerns provides opportunities to bargain about technological changes in the workplace. In *Detroit Edison Co. v. NLRB*, 440 U.S. 301 (1979), the Supreme Court reached the issue of confidentiality concerns. The Court stated:

> The dispute over Union access to the actual scores received by named employees is in a somewhat different procedural posture, since the Company did on this issue preserve its objections to the basic finding that it had violated its duty under § 8 (a)(5) when it refused disclosure. The Company argues that even if the scores were relevant to the Union's grievance (which it vigorously disputes), the Union's need for

> the information was not sufficiently weighty to require breach of the promise of confidentiality to the examinees, breach of its industrial psychologists' code of professional ethics, and potential embarrassment and harassment of at least some of the examinees. The Board responds that this information does satisfy the appropriate standard of "relevance," see *NLRB v. Acme Industrial Co.*, 385 U.S. 432, and that the Company, having "unilaterally" chosen to make a promise of confidentiality to the examinees, cannot rely on that promise to defend against a request for relevant information. The professional obligations of the Company's psychologists, it argues, must give way to paramount federal law. Finally, it dismisses as speculative the contention that employees with low scores might be embarrassed or harassed.
>
> We may accept for the sake of this discussion the finding that the employee scores were of potential relevance to the Union's grievance, as well as the position of the Board that the federal statutory duty to disclose relevant information cannot be defeated by the ethical standards of a private group. Cf. *Nash* v. *Florida Industrial Comm'n*, 389 U.S. 235, 239. Nevertheless we agree with the Company that its willingness to disclose these scores only upon receipt of consents from the examinees satisfied its statutory obligations under § 8 (a)(5).
>
> The Board's position appears to rest on the proposition that union interests in arguably relevant information must always predominate over all other interests, however legitimate. But such an absolute rule has never been established, and we decline to adopt such a rule here. There are situations in which an employer's conditional offer to disclose may be warranted. This we believe is one.
>
> ***
>
> In light of the sensitive nature of testing information, the minimal burden that compliance with the Company's offer would have placed on the Union, and the total absence of evidence that the Company had fabricated concern for employee confidentiality only to frustrate the Union in the discharge of its responsibilities, we are unable to sustain the Board in its conclusion that the Company, in resisting an unconsented-to disclosure of individual test results, violated the statutory obligation to bargain in good faith. See *NLRB* v. *Truitt Mfg. Co.*, 351 U.S. 149. Accordingly, we hold that the order requiring the Company unconditionally to disclose the employee scores to the Union was erroneous.

440 U.S. at 317-20. The critical word for our consideration is the word "unconditionally." The Court's holding has led to many disputes about confidentiality and when the employer has to disclose or reach an accommodation for the failure to disclose.

For example, in one recent case it appears as though neither party raised an issue of accommodating a confidentiality concern. That is a risky strategy for both parties. This sometimes arises where the employee's assertion is that a privilege exists (under state or federal law or otherwise) and that, therefore, no accommodation is needed. No discussion of an accommodation could, in this case:

> A party asserting confidentiality has the burden of establishing that the information is confidential. The Board then balances the confidentiality interests against the union's need for the information. *Kaleida Health, Inc.*, 356 NLRB No. 171, slip op. at 1, 6-7 (2011), citing *Detroit Edison Co.* v. NLRB, 440 U.S. 301, 318-319, 99 S.Ct. 1123, 59 L. Ed. 2d 333 (1979). In determining whether an employer has established a confidentiality claim, the Board has considered State laws deeming certain information confidential. See *Kaleida Health, Inc.*, 356 NLRB No. 171, slip op. at 1, 6-7 (affirming an administrative law judge's finding that New York State's general policy against disclosure of the kinds of information covered by Section 6527(3) raised a legitimate confidentiality interest with regard to certain incident reports requested by the union in that case); *Borgess Medical Center*, 342 NLRB 1105, 1105 (2004) ("state law deeming certain information confidential may be considered in assessing whether there is a legitimate confidentiality interest in that information").
>
> Here, the Respondent urges the Board to find that the requested information is confidential because the deliberations of a peer review body are protected by a Kansas State law privilege. Kansas created, by statute, a privilege exempting the reports, findings, and other records submitted to or generated by peer review committees from discovery, subpoena, or other means of legal compulsion. See Kan. Stat. Ann. Sec. 65-4915(b). The purpose of that privilege is to "'increase the level of health care in the state by protecting the deliberations of peer review committees.'" *Adams v. St. Francis Regional Medical Center*, 264 Kan. 144, 955 P.2d 1169, 1186 (Kan. 1998) (quoting *Hill v. Sandhu*, 129 F.R.D. 548, 550-551 (D. Kan. 1990)). In construing the statute, however, the courts have made clear that the privilege is "to be narrowly, not expansively, construed," and is aimed at shielding the committee's internal deliberative process. *Hill v. Sandhu*, *supra* at 550.

Menorah Med. Ctr. & Nurses Organizing Comm., 362 N.L.R.B. No. 193, 2015 NLRB LEXIS 670, at*15-16 (2015), *enforced in part by* 867 F.3d 1288 (D.C. Cir. 2017).

Normally, when an employer asserts a claim of confidentiality, it has to offer to bargain about an accommodation. If it flat out refuses to do so, it will then have to establish it has a legal right to completely refuse to disclose the information.

This will offer an opportunity to bargain about technology.

Employers, to a large degree, will claim that information about technology is a proprietary or trade secret. In many cases, they will be correct and that may depend on state or federal law. In many cases, these obligations are being imposed by third party providers. Such concerns, however, do not provide an absolute barrier to provide any information that the union will need. Nor do they bar information to test the assertion that the information is proprietary or a trade secret. Nor do they bar an inquiry into whether the asserted confidentially has been preserved.[44] Moreover, in light of the Board's decision in *Boeing Co.*, 365 N.L.R.B. No. 154, 2017 NLRB LEXIS 634 (2017), (discussed more fully below) the issue of confidentiality will require more employer justification.

The union can look to state law for a definition of "trade secret" which often comes from uniform state laws. For example, California defines a trade secret as follows:

> (d) "Trade secret" means information, including a formula, pattern, compilation, program, device, method, technique, or process, that:
>
> (1) Derives independent economic value, actual or potential, from not being generally known to the public or to other persons who can obtain economic value from its disclosure or use; and
>
> (2) Is the subject of efforts that are reasonable under the circumstances to maintain its secrecy.[45]

The union could modify its proposal to make it narrower for bargaining purposes but this is a good place to start.

There will certainly be a strong incentive on the employer's part to reach some other accommodation. There are two possible accommodations. The first is bargaining about providing the information through some restrictive means to protect the employer's interest. A second will be to reach an accommodation with the union to make the information irrelevant. If the latter results in an agreement to withdraw or limit the technology, this is our best result.

We are all exposed to confidentiality agreements in litigation. Those confidentiality agreements can be a template for confidentiality agreements proposed by employers. The employer will, however, have an obligation to bargain over every word, phrase, and concept in the confidential agreement. So long as the parties are bargaining over the information requests, the employer is certainly foreclosed from reaching impasse or forcing the union to bargain over that issue. In considering confidentiality concerns, the union will be entitled to information to establish the necessity for the confidentiality provisions. For example, the union can ask for all the employer protocols in protecting the so-called proprietary or trade secret information.

The following of some of the questions that can be raised:

- What definition is used for "confidential." Or proprietary? Or trade secret?

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[44] This may be the time when the union insists on having the chief technology officer or equivalent present. The employer's bargaining committee probably knows nothing about this.

[45] Cal. Civ. Code § 3426.1(d).

- Are there any protocols to protect the so-called proprietary or confidential information?
- Who in the company's employment is able to have access to that information?
- What procedures does the employee have to protect the confidentiality of that information?
- Has the employer's database been hacked or accessed improperly with respect to that information?
- What would be the economic consequences of disclosing that information?

In summary, then, *Detroit Edison* opens a wide field of discussion for purposes of negotiations over artificial intelligence. In many cases, the information will relate to prospective business plans where the employer would have a very legitimate reason not to disclose it to competitors. On the other hand, much of the information will be obtained from third party providers where the information is already public or has already been disclosed to competitors.

X. TAKING ADVANTAGE OF BARGAINING OVER THE FINANCIAL ASPECT OF TECHNOLOGY

In 2011, then General Counsel Lafe Solomon issued a "Guideline Memorandum Concerning Parties' Obligation to Provide Information Related to Assertions Made in Collective Bargaining," Memorandum GC 11-13. The Memorandum concluded that the Board's approach to *NLRB v. Truitt Mfg. Co.*, 351 U.S. 149 (1956), was flawed. The problem with respect to the claim of "inability to pay" was defining an approach to what really is an inability to pay when the employer does not use those magic words. The second aspect of the Memorandum concerned employer assertions that were not strictly "inability to pay" but had to do with, for example, competitiveness and the extent to which those concerns, as explained by the employer, would allow the union to ask for additional information to verify the employer's claims. The General Counsel's Memorandum saw these not as distinct analyses but the latter of a subset of the more general "inability to pay" doctrine.

At the time of the General Counsel's Memorandum, several cases had addressed the kind of specific claims made by employers, particularly with respect to lack of competitiveness. *See A-1 Door & Bldg. Sols.*, 356 N.L.R.B. 499 (2011); *Caldwell Mfg. Co.*, 346 N.L.R.B. 1159 (2006).

Employers, in the context of artificial intelligence, may well assert that they need to implement or be ready to implement artificial intelligence because the competition is doing so. They may also assert that they need it to remain competitive themselves without asserting that their competition is doing so.

These assertions will open the door to very substantial and intrusive information requests. The union could ask for such things as:

- Cost estimates for the artificial intelligence
- Cost savings for the artificial intelligence
- Labor cost savings
- Startup costs

- Costs for the artificial intelligence and/or for maintenance of it
- Productivity estimates
- Need for contracted maintenance
- Anticipated changes and upgrades

It is likely in most of these cases that the employer will assert that the artificial intelligence will reduce labor costs. This makes it particularly unique and vulnerable to such information requests.

With respect to the more general question of whether an employer has actually made an "inability to pay" statement, the Board recently addressed that issue in *Wayron, LLC*, 364 N.L.R.B. No. 60, 2016 NLRB LEXIS 563 (2016), *order denying motion for reconsideration at* 2017 NLRB LEXIS 98 (2017). Although the employer did not use the magic words, the Board held that the overall context of the employer's position was in effect, an "inability to pay." These circumstances are less likely to arise in artificial intelligence situations. Nonetheless, as explained by the Board, "[t]hus, we must look beyond the Respondent's carefully phrased assertions that its position on employee compensation related to competitiveness and that it would never say that it could not afford the Unions' bargaining proposals." 2016 NLRB LEXIS 563, at *17. We can always press the employer in negotiations about the reasons it is implementing or refusing to implement artificial intelligence.

XI. BARGAINING OVER EMPLOYER RULES WHICH CONCERN TECHNOLOGY

A. INTRODUCTION

Under the Clinton and Obama Board, the Board took on employer rules in a massive way. Employers were squawking. But it was their own fault for implementing so many workplace rules. The Trump Board has now attempted to reverse that in *Boeing Co.*, 365 NLRB No. 154, 2017 NLRB LEXIS 634 (2017).[46] This, however, will open the door to much more bargaining.

Where the employer maintains a rule violating the Act, it is too easy to simply file a charge alleging a violation of Section 8(a)(1). That leads to a notice posting and a potential rescission of the rule. In an organizing strategy, that may be useful because it may be objectionable conduct.

In a bargaining context, it offers a different form of leverage. First, at an appropriate point, the union should point out that the rule is invalid and demand that the rule be immediately rescinded. When the employer insists on maintaining the rule, the union should take the position that not only is the employer maintaining the rule, but it is effectively enforcing it by announcing to the union that it will maintain the rule. This would add an additional aspect to the Section 8(a)(1) charge.

Second, the union should insist that the maintenance of the unlawful rule interferes with bargaining because the union has the right to bargain against illegal rules. Point out that the maintenance of the illegal rule over the union's objection is bad faith bargaining. It is like

[46] *See* 366 N.L.R.B. No. 128 (2018) (dismissing motion for reconsideration and recusal).

making an illegal proposal. Although the Board may not find the employer's proposal of an illegal proposal itself to be unlawful, it will certainly find the violation if the employer declares impasse with an unlawful rule on the table; that impasse is unlawful so long as the union makes enough of a point about the maintenance of the rule interfering with bargaining. This puts the employer in a very uncomfortable position.

The union has a right to ask for information about the maintenance and enforcement of all the rules in the handbook, including those that may be suspect. In one information request, the most interesting question had to do with a rule that prohibited drivers from stopping at locations of "ill repute." This, of course, offered the opportunity to ask the employer for a list of all the locations which were of "ill repute." We were particularly interested in knowing which ones management was aware of. We never got a complete response.

Finally, *Boeing* now allows the union to probe the "legitimate business justification for maintaining the rule." It can explore also "the rule's potential impact on protected concerted activity." Each rule and each justification will now vary employer to employer and industry to industry. The union can now even raise (as employers can) the legitimacy of rules restricting solicitation, distribution of literature and other rules.

B. EMPLOYER RULES REGARDING TECHNOLOGY

It is most likely that unions will encounter rules about technology because employers will impose confidentiality rules. Those rules may come in various forms, and will refer to "company confidential information," "proprietary information," and so on.

Some of that information will certainly relate to wages, hours, and working conditions. Technology that monitors work (cameras are an early example) such as GPS, programs that monitor emails, and so on, certainly relate to wages, hours, and working conditions. Other technology may only require impact bargaining.

Nonetheless, once the union locates a reference to technology in the employer rules, it's appropriate to bargain.

The union can craft an appropriate information request regarding that technology, both to determine what the technology is, as well as the extent to which it affects workers may be implemented or is proprietary and the extent to which it is proprietary.

Employer rules will offer an abundance of opportunity for unions to bargain and to use that bargaining for very effective leverage. That bargaining will include issues regarding technology. In some cases the handbook rules may affect only a few members of the unit. This imposes a real problem for the employer which wants a uniform set of rules for all employees.

Virtually all employer rules that have come before the Board contain some provisions regarding artificial intelligence. For the most part, they are either couched in terms of use of electronic communications or employer confidentiality concerns regarding company information.

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C. THE COMPETING DOCTRINES UTILIZED IN EVALUATING RULES

There are essentially three different ways to evaluate employer rules. There is the traditional *Lutheran Heritage Village-Livonia*, 343 N.L.R.B. 646 (2004) (*Lutheran Heritage*), test. The second test is the Miscimarra proposed "balancing test," discussed below. The third test is the prior more favorable test of *Lafayette Park Hotel*, 326 N.L.R.B. 824 (1998), which construed any ambiguities in arguably overbroad rules against employers. *See also Ark Las Vegas Rest. Corp.*, 343 N.L.R.B. 1281, 1283 (2004) (any ambiguity in a rule that restricts concerted activity can be construed against the employer). Now, there is the *Boeing* test, which mirrors the "balancing test" advocated by Miscimarra before he left the Board. We address these tests below because they illustrate how we can bargain effectively over rules, particularly those that relate to technology.

In 2004, the Bush Board issued *Lutheran Heritage*, in which it established the rule in interpreting employer rules. The Obama Board, however, while relying on that rule and not expressly overruling it, found many more rules to be invalid than were found under the Bush Board. The principal issue is always in applying the first prong of the test. The test as stated in a recent case, which we will discuss more below, is as follows:

> Where, as here, a rule does not explicitly restrict activities protected by Section 7, the rule is nevertheless unlawful if (1) employees would reasonably construe the language to prohibit Section 7 activity; (2) the rule was promulgated in response to Section 7 activity; or (3) the rule has been applied to restrict the exercise of *such activity. Lutheran Heritage Village-Livonia,* 343 NLRB 646, 646-647 (2004).

William Beaumont Hosp., 363 N.L.R.B. No. 162, 2016 NLRB LEXIS 282, *6 (2016).

In *Boeing*, the Trump Board established the following test:

> Under the standard we adopt today, when evaluating a facially neutral policy, rule or handbook provision that, when reasonably interpreted, would potentially interfere with the exercise of NLRA rights, the Board will evaluate two things: (i) the nature and extent of the potential impact on NLRA rights, *and* (ii) legitimate justifications associated with the rule. We emphasize that *the Board* will conduct this evaluation, consistent with the Board's "duty to strike the *proper balance* between . . . asserted business justifications and the invasion of employee rights in light of the Act and its policy," focusing on the perspective of employees, which is consistent with Section 8(a)(1). As the result of this balancing, in this and future cases, the Board will delineate three categories of employment policies, rules and handbook provisions (hereinafter referred to as "rules"):
>
> - *Category 1* will include rules that the Board designates as lawful to maintain, either because (i) the rule, when reasonably interpreted, does not prohibit or interfere with the exercise of

NLRA rights; or (ii) the potential adverse impact on protected rights is outweighed by justifications associated with the rule. Examples of Category 1 rules are the no-camera requirement in this case, the "harmonious interactions and relationships" rule that was at issue in *William Beaumont Hospital*, and other rules requiring employees to abide by basic standards of civility.

- *Category 2* will include rules that warrant individualized scrutiny in each case as to whether the rule would prohibit or interfere with NLRA rights, and if so, whether any adverse impact on NLRA-protected conduct is outweighed by legitimate justifications.

- *Category 3* will include rules that the Board will designate as *unlawful* to maintain because they would prohibit or limit NLRA-protected conduct, and the adverse impact on NLRA rights is not outweighed by justifications associated with the rule. An example of a Category 3 rule would be a rule that prohibits employees from discussing wages or benefits with one another.

The above three categories will represent a classification of *results* from the Board's application of the new test. The categories are not part of the test itself. The Board will determine, in future cases, what types of additional rules fall into which category. Although the legality of some rules will turn on the particular facts in a given case, we believe the standard adopted today will provide far greater clarity and certainty to employees, employers and unions. The Board's cumulative experience with certain types of rules may prompt the Board to redesignate particular types of rules from one category to another, although one can expect such circumstances to be relatively rare.

We emphasize that Category 1 consists of two subparts: (a) rules that are lawful because, when reasonably interpreted, they would have no tendency to interfere with Section 7 rights and therefore no balancing of rights and justifications is warranted, and (b) rules that are lawful because, although they do have a reasonable tendency to interfere with Section 7 rights, the Board has determined that the risk of such interference is outweighed by the justifications associated with the rules. Of course, as reflected in Categories 2 and 3, if a particular type of rule is determined to have a potential adverse impact on NLRA activity, the Board may conclude that maintenance of the rule is *unlawful*, either because individualized scrutiny reveals that the rule's potential adverse impact outweighs any justifications (Category 2), or because the type of rule at issue predictably has an adverse impact on Section 7 rights that outweighs any justifications (Category 3). Again, even when a rule's *maintenance* is deemed lawful, the Board will

> examine circumstances where the rule is *applied* to discipline employees who have engaged in NLRA-protected activity, and in such situations, the discipline may be found to violate the Act.

Boeing Co., 2017 NLRB LEXIS 634, at *12-17 (footnotes omitted).

This test will require balancing of each rule. Because each rule is written differently, it would require different balancing in each case, depending upon the nature of the employer's business and the Section 7 rights at issue. This will make it a much more factually intensive challenge. On the other hand, it will make it much more difficult for unions to file charges which result in the issuance of Complaint because the union will not be able to rely upon a facial reading of the rule.[47] It would also make it more difficult for employer's counsel to predict whether a particular rule will be found to run afoul of the Act. For our purposes, this increase in factual relevance will allow much more bargaining particularly where these rules intersect with technology.

The union can file a charge over a rule and offer reasons why there can be no reasonable business justification. This will force the employer in each case to come up with a business justification. Even if the Board has found such a rule valid for one employer in one industry, it may not be valid for all employers and all industries in all contexts. The application will be employer by employer, worksite by work site, work area by work area, even employee by employee. In organizing settings, the union will not likely have any evidence of enforcement or application of the rule. The reason in virtually all cases why there's no enforcement of a rule is that employees are reluctant to engage in conduct which they think may lead to discipline. If they are going to engage in that conduct, they attempt to do so without detection in order to avoid the risk of discipline.

Chairman Miscimarra made a good point that it is difficult to write rules that are compliant:

> The above cases comprise an extremely small sampling of Board and court cases addressing a single, narrow category of policies, rules and handbook provisions. The disputed rules also occupy a very narrow space that involves promoting civility and respect. Do these cases permit one to understand what the "lawful" rules do correctly and what the "unlawful" rules do incorrectly? I believe the rather obvious answer is no. The above cases yield the following results

Lawful Rule	**Unlawful Rule**
• no "abusive or threatening language to anyone on Company premises"	• no "loud, abusive, or foul language"

[47] In the Verizon case below, the charging party served a subpoena on the employer for much of the information which would allow it to meet the balancing test and prove that there is no business justification. The ALJ rejected the subpoena and an offer of proof relying on the General Counsel's facial challenge. *See Verizon N.J., etc.*, Cases 02-CA-156761, *et al*.

Lawful Rule	Unlawful Rule
• no "verbal abuse," "abusive or profane language," or "harassment"	• no "false, vicious, profane or malicious statements toward or concerning the . . . Hotel or any of its employees"
• no "conduct which is . . . injurious, offensive, threatening, intimidating, coercing, or interfering with" other employees	• no "inability or unwillingness to work harmoniously with other employees"
• prohibiting "conduct that does not support the . . . Hotel's goals and objectives"	• no "negative energy or attitudes"
	• no "[n]egative conversations about associates and/or managers"

William Beaumont Hosp., 2016 NLRB LEXIS 282, at *71.

The *Boeing* case is in part based on this point:

> Paradoxically, *Lutheran Heritage* is too simplistic at the same time it is too difficult to apply. The Board's responsibility is to discharge the "special function of applying the general provisions of the Act to the complexities of industrial life." Though well-intentioned, the *Lutheran Heritage* standard prevents the Board from giving meaningful consideration to the real-world "complexities" associated with many employment policies, work rules and handbook provisions. Moreover, *Lutheran Heritage* produced rampant confusion for employers, employees and unions. Indeed, the Board itself has struggled when attempting to apply *Lutheran Heritage*: since 2004, Board members have regularly disagreed with one another regarding the legality of particular rules or requirements, and in many cases, decisions by the Board (or a Board majority) have been overturned by the courts of appeals.
>
> These problems have been exacerbated by the zeal that has characterized the Board's application of the *Lutheran Heritage* "reasonably construe" test. Over the past decade and one-half, the Board has invalidated a large number of common-sense rules and requirements that most people would reasonably expect every employer to maintain. We do not believe that when Congress adopted the NLRA in 1935, it envisioned that an employer would violate federal law whenever employees were advised to "work

> harmoniously" or conduct themselves in a "positive and professional manner." Nevertheless, in *William Beaumont Hospital*, the Board majority found that it violated federal law for a hospital to state that nurses and doctors should foster "harmonious interactions and relationships," and Chairman (then-Member) Miscimarra stated in dissent:
>
> > Nearly all employees in every workplace aspire to have "harmonious" dealings with their coworkers. Nobody can be surprised that a hospital, of all workplaces, would place a high value on "harmonious interactions and relationships." There is no evidence that the requirement of "harmonious" relationships actually discouraged or interfered with NLRA-protected activity in this case. Yet, in the world created by Lutheran Heritage, it is unlawful to state what virtually every employee desires and what virtually everyone understands the employer reasonably expects.

Boeing Co., 2017 NLRB LEXIS 634, at *9-12 (footnotes omitted). The uncertainty that this poses for an employer is an advantage for the union. The employer bears all the risk of maintaining and insisting on an overbroad rule. The union loses nothing by insisting that the rule is invalid and overbroad. And now it can bargain more effectively.

The Board has in some cases noted that an ambiguity renders a rule invalid where employees can construe a rule as overbroad:

> Board law is settled that ambiguous employer rules--rules that reasonably could be read to have a coercive meaning--are construed against the employer. This principle follows from the Act's goal of preventing employees from being chilled in the exercise of their Section 7 rights--whether or not that is the intent of the employer--instead of waiting until that chill is manifest, when the Board must undertake the difficult task of dispelling it. See, e.g., *Lafayette Park Hotel*, 326 NLRB at 828; see also 2 *Sisters Food Group*, 357 NLRB No. 168, slip op. at 3 (2011). Despite the dissent's suggestion to the contrary, the Board's approach in this area has met with the approval of the U.S. Court of Appeals for the District of Columbia Circuit. See *Cintas Corp. v. NLRB*, 482 F.3d 463, 467-470, 375 U.S. App. D.C. 371 (D.C. Cir. 2007) (enforcing Board decision that found unlawful employer rule requiring employees to maintain "confidentiality of any information concerning the company, its business plans, its partners, new business efforts, customers, accounting and financial matters:); see also *Brockton Hospital v. NLRB*, 294 F.3d 100, 106, 352 U.S. App. D.C. 302 (D.C. Cir. 2002) (enforcing Board decision that found unlawful employer rule prohibiting discussion of "information concerning patients, associates, or hospital operations . . . except strictly in connection with hospital business").

Flex Frac Logistics, LLC, 358 N.L.R.B. 1131, 1132 (2012), *on subsequent decision on unrelated issue*, 360 N.L.R.B. 1004 (2014). *See also Hoot Winc, LLC*, 363 N.L.R.B. No. 2, 2015 NLRB LEXIS 681 (2015); *SolarCity Corp.*, 363 N.L.R.B. No. 83, 2015 NLRB LEXIS 936, at *25 (2015) (rules that would reasonably be read by employees to have a coercive meaning are construed against the employer); *Schwan's Home Serv., Inc.*, 364 N.L.R.B. No. 20 (2016).

This statement is somewhat at odds with *Lutheran Heritage*. It illustrates the tension and demonstrates that employers will normally make rules as ambiguous as possible to cover as much as they think they can get away with.

In the now established "balancing test" from *Boeing*, this will give the union much more room to bargain about rules. The focus of the rules will not be the language but the business interests supporting the rule.

While an employer is arguably protected from such intrusion in litigation,[48] they are not protected from obtaining the same information to bargain the need for such rules and the meaning of such rules.

XII. MOST COMPANIES HAVE RULES WHICH REQUIRE THAT EMPLOYEES MAINTAIN THE CONFIDENTIALITY OF COMPANY INFORMATION; THESE RULES ENCOMPASS TECHNOLOGY ISSUES

In a bargaining setting, the employer's maintenance of a rule requiring employees to keep company information confidential can be a very useful tool.

It is plain that where company information includes personnel information relating to wages, hours, and working conditions, it is overbroad under the traditional *Lutheran Heritage* test and the *Boeing* test. Under the *Boeing* test, an employer might be able to come forward and argue that there's a need to have such a broad rule, even though some employees might construe this to include information about wages, hours, and working conditions.

On the other hand, once an employer maintains or implements such a rule, it offers a very useful bargaining opportunity.

First, this gives the union the right to determine whether "company information" would include wages, hours, and working conditions. Second, it gives the union the opportunity to determine what information would be considered proprietary and non-disclosable to other employees. Third, it would give the union an opportunity to determine what "company information" the company considers to be disclosable among employees but not disclosable to union representatives for representation or bargaining purposes. Fourth, it would even allow the union to determine what information is not disclosable for purposes of determining when the employer has made a decision which may not be subject to bargaining, but where the impact may be subject to bargaining. Finally, it certainly offers the opportunity to the union to determine what

[48] "Furthermore, it is settled that production of extrinsic evidence, such as testimony showing that employees interpreted the rule to preclude access to the Board, is not a precondition to finding that a rule is unlawful by its terms." *Hoot Winc, LLC*, 2015 NLRB LEXIS 681, at *3.

information, if disclosed, would lead to discipline and, if so, what form of discipline. There is obviously a lot of opportunity here.

Below, we offer some examples from a few cases.

A. EXAMPLES OF SPECIFIC RULES

The following are some rules that appear in a Verizon handbook. They are the subject of a pending case where the Administrative Law Judge has issued a decision finding the following rules to violate Section 8(a)(1) with the exception of the employer privacy rule. *See Verizon N.J., etc.*, Cases 02-CA-156761, et al.[49] Each of these rules offers an immense opportunity for an effective bargaining strategy. Some also are at issue in a related case, *Cellco Partnership d/b/a Verizon Wireless*, 365 N.L.R.B. No. 38 (2017).

1. Use of Recording Devices

> **Section 1.8.2 Use of Recording Devices**
>
> In many jurisdictions, use of recording devices without the consent of both parties is unlawful. Unless you are participating in an approved observation program or you have obtained prior approval from Security or the Legal Department, you may not record, photograph, or videotape another employee while the employee is at work or engaged in business activities or access another employee's systems, records or equipment without that employee's knowledge and approval. In addition, unless you receive prior approval from the Legal Department, you may never record, photograph or videotape any customer, business provider or competitor without that person's knowledge and approval.

The Board has ruled in several cases that prohibitions against the use of recording devices is unlawful. In particular, employees are entitled to photograph conditions which may be unsafe or unlawful. Employees are entitled to take photographs of employee records that are not subject to this absolute prohibition. They can take pictures of pay check stubs, company policies covering working conditions, vending machines, etc. Employees are entitled to take pictures of group activity or of workers supporting concerted activity. They can take pictures in lunch rooms, parking lots, or at work sites away from the premises. If they are installing equipment in public areas, they can take pictures. They can take pictures of customers to use in boycotts if necessary or take pictures of customers who engage in gathering or unsafe or illegal activities. The prohibition extends to "at work," which includes off duty and during lunch, breaks, and so on. The employer may have a sustainable business purpose in prohibiting photographs of proprietary equipment or processes, but a blanket prohibition is not legal.

[49] The Charging Parties asked to provide evidence to support their position that there was no business justification and served a lengthy subpoena on the employer. The ALJ quashed the subpoena and accepted, over the Charging Parties' objection, a stipulated record. The Board may have to remand to the ALJ to allow the subpoena to be complied with under *Boeing*.

The statement that "[i]n many jurisdictions, use of recording devices without the consent of both parties is unlawful" is false. There are very few jurisdictions that prohibit such recordings. *See* Matthiesen, Wickert & Lehrer, S.C., *Laws on Recording Conversations in All 50 States*, https://www.mwl-law.com/wp-content/uploads/2013/03/LAWS-ON-RECORDING-CONVERSATIONS-CHART.pdf (last updated Aug. 6, 2018). This false statement is meant to chill lawful recording in most states, which permit one party consent recording. At least in those jurisdictions, the prohibition in the rule is unlawful.

The rule is an interference with the technology that employees can bring to the workplace. They can bring their own recording technology to keep track of work or time. They can bring Fitbit and other technology to monitor health and safety, work place speeds, and maintain time and attendance records. Watches have phone capacity to take pictures of unsafe conditions.

Employees could conceivably implant chips to record activity. Employees may need medical devices to monitor activity. All of this permits bargaining. The union could bargain room by room, equipment by equipment, over what can be photographed.

We don't think *Boeing* forecloses this argument and the Board did state that the rule was valid in that case after describing the extensive efforts made to prevent photographs. Whether cameras or recording devices may be prohibited will vary from employer to employer, industry to industry and even room to room at the employer's premises. It may vary depending on what is being recorded or photographed. *Boeing* offers an opportunity.

2. Broad Prohibition Against Use of Company Systems

Section 3.4.1 Prohibited Activities

> You may never use company systems (such as e-mail, instant messaging, the Intranet or Internet) to engage in activities that are unlawful, violate company policies or result in Verizon's liability or embarrassment. Some examples of inappropriate uses of the Internet and e-mail include:
>
> - Pornographic, obscene, offensive, harassing or discriminatory content;
> - Chain letters, pyramid schemes or unauthorized mass distributions;
> - Communications on behalf of commercial ventures;
> - Communications primarily directed to a group of employees inside the company on behalf of an outside organization;
> - Gambling, auction-related materials or games;
> - Large personal files containing graphic or audio material;
> - Violation of others' intellectual property rights; and
> - Malicious software or instructions for compromising the company's security.

> Also, you may not send e-mail containing non-public company information to any personal e-mail or messaging service unless authorized to do so by your supervisor and you comply with company requirements relating to the encryption of information.

In particular, prohibited activities include "Communications primarily directed to a group of employees inside the company on behalf of an outside organization." This violates *Purple Communications, Inc.*, 361 N.L.R.B. 1050 (2014), and *Purple Communications, Inc.*, 365 N.L.R.B. No. 50, 2017 NLRB LEXIS 129, at *2 n.1 (2017), and *UPMC*, 362 N.L.R.B. No. 191 (2015) (applying *Purple Communications* to solicitation policy).

The Board declined to completely overrule *Register-Guard* in *Purple Communications*, 361 N.L.R.B. 1050, and *Purple Communications*, 2017 NLRB LEXIS 129, at *2 n.1. The Board should do so. *Cf. UPMC*, 362 N.L.R.B. No. 191 (Board does not overrule discrimination test of *Register-Guard* even though briefed by parties). The Board is now set to overrule *Purple* Communications and apply those principles to all forms of electronic communication. *See* NLRB, *Board Invites Briefs Regarding Employee Use of Employer Email*, https://www.nlrb.gov/news-outreach/news-story/board-invites-briefs-regarding-employee-use-employer-email (Aug. 1, 2018).

These types of provisions open the door to bargaining about use of the email during work hours since some employees are given access. This opens the door to bargaining access for non-employees such as union representatives. *Boeing* opens the door to further bargaining about employer justifications.

3. The Reporting Provision

Speak Up

> Do the Right Thing Because it's the Right Thing to Do
>
> You must report suspected and actual violations of this Code, company policy and the law. Verizon will investigate reported instances of questionable or unethical behavior.
>
> In deciding whether a violation of the Code has occurred or is about to occur, you should first ask yourself:
>
> - Could this conduct be viewed as dishonest, unethical or unlawful?
> - Could this conduct hurt Verizon? Could it cause Verizon to lose credibility with its customers, business providers or investors?
> - Could this conduct hurt other people, such as other employees, investors or customers?

> If the answer to any of these questions is "yes" or even "maybe," you have identified a potential issue that you must report.
>
> ***
>
> If you suspect or are aware of any improper disclosure of non-public company information, you must immediately report it to Security or the VX Compliance Guideline.

This unquestionably requires employees to seek approval of management for any of the conduct that is remotely or arguably encompassed within any rule and includes conduct that is protected concerted activity. It is much like the "contract coverage" doctrine advanced by some former members of the Board and one current member. If the Code possibly covers the subject, then the employee must self-report his or her activity or the activities of others. Nothing could chill activity of employees more than knowing that their fellow workers are required to snitch and inform on them if the conduct may be protected activity.

Employees have the right to contact customers to seek their support. In effect, they have the right to ask customers to support a boycott. *Trinity Protection Servs., Inc.*, 357 N.L.R.B. 1382, 1383 (2011); *Kinder-Care Learning Ctrs., Inc.*, 299 N.L.R.B. 1171, 1171-72 (1990). Limitations on contacting customers are therefore invalid. However, the union can bargain a waiver of that right just as it can bargain other waivers of rights during the term of an agreement.[50]

This makes every employee a monitor of electronic communications. Any misuse of the employer's systems requires a report. In light of *Boeing*, every employer will have to disclose its monitoring functions and procedures.

4. Employee Privacy[51]

> **Section 1.8 Employee Privacy**
>
> You must take appropriate steps to protect confidential personal employee information, including social security numbers, identification numbers, passwords, bank account information and medical information. You should never access or obtain, and may not disclose outside of Verizon, another employee's personal information obtained from Verizon business records or systems unless you are acting for legitimate business purposes and in accordance with applicable laws, legal process and company policies, including obtaining any approvals necessary under those policies.

[50] The union could not waive the right of employees individually to contact customers. *NLRB v. Magnavox Co. of Tenn.*, 415 U.S. 322 (1974).

[51] In *Cellco*, the Board found the rule was not unlawful. In the Verizon case pending before the Board the General Counsel, relying on the decision in *Cellco*, withdrew that allegation and the Charging Party has filed Exceptions on that issue.

The Board in *Cellco* found the rule valid only because it interpreted the word "including" to be a word of limitation meaning that the only confidential personal employee information which could not be disclosed is the information described after the word including. This is contrary to well established law that the word "including" is a not a word of limitation but a word of enlargement.

The entirety of the textual analysis that led the ALJ and the Board to conclude that the 2015 version of Section 1.8 is lawful, is contained in the following paragraph:

> The rule has two sentences. In the first sentence, the phrase 'confidential personal employee information' specifically includes 'social security number, identification numbers, passwords, bank account information and medical information.' This information is legitimately protected confidential information. Possible ambiguity might have resulted if the first sentence of the rule specifically recited typical expansive language such as 'including but not limited to.' But here the first sentence uses the term 'including.' A literal reading of the second sentence might fault it for changing the first sentence's term 'confidential personal employee information' to 'employee's personal information.' Redundancy of the first sentence term in the second sentence would have provided a positive indication that the second sentence referred to the same phrase and the same specific information used in the first sentence. However, a reasonable reading of the first and second sentences in context indicates that the same information is referenced in both sentences. That is, [a] reasonable reading of the second sentence in context is that employees should never access, obtain, or disclose another employee's social security number, identification number, password, bank account information, or medical information unless acting for legitimate business purposes.

The Courts have uniformly rejected this interpretation of "including." Long ago, the Supreme Court rejected the argument that the word "including" was a word of limitation when interpreting section 10(c) of the National Labor Relations Act: *Phelps Dodge Corp. v. NLRB*, 313 U.S. 177, 188-89 (1941). The Supreme Court later that same year again held that the word "including" is illustrative. *Fed. Land Bank of St. Paul v. Bismarck Lumber Co.*, 314 U.S. 95, 99–100 (1941); *see also San Luis & Delta-Mendota Water Auth. v. Haugrud*, 848 F.3d 1216, 1229 (9th Cir. 2017); *P.R. Mar. Shipping Auth. v. Interstate Commerce Comm'n*, 645 F.2d 1102, 1112 (D.C. Cir. 1981) (principle that "including" is "illustrative, not exclusive" is hornbook law); *Morillion v. Royal Packing Co.*, 22 Cal.4th 575, 581-82 (2000) (word "includes" is a word of enlargement).

The point here is not whether the Board is wrong (which it is) but that it illustrates a bargaining opportunity. Verizon would not want to be pinned down to limiting the categories of confidential information to just those specified after the word "including."[52] But the process of

[52] The Union could have pinned the employer down before filing the charge and probably prevailed or forced the employer to modify the rule. *Macy's, Inc.*, 365 N.L.R.B. No. 116 (2017).

bargaining would either limit the categories or change the rule. *Boeing* will mandate bargaining over the business justification for maintaining confidentiality about every kind of allegedly confidential information.

5. Surveillance

Section 1.8.1 Monitoring On the Job

> In order to protect company assets, provide excellent service, ensure a safe workplace, and to investigate improper use or access, Verizon monitors employees' use of Verizon's communications devices, computer systems and networks (including the use of the Internet and corporate and personal web-based email access from Verizon devices or systems), as permitted by law. In addition, and as permitted by law, Verizon reserves the right to inspect, monitor and record the use of all company property, company provided communications devices, vehicles, systems and facilities – with or without notice – and to search or monitor at any time any and all company property and any other personal property (including vehicles) on company premises.

Because Verizon unlawfully restricts the use of its assets, including computer systems and networks, the monitoring is used to determine whether there has been communications which are protected, concerted activity. Because monitoring would necessarily include what is otherwise lawful activity, the monitoring provision is unlawful. It's a form of explicit surveillance of protected, concerted activity.

The asserted right "to search or monitor at any time … any other personal property (including vehicles) on company premises" is overbroad. No employer has to right to search pockets, personal cell phones, or to monitor personal cell phone use on non-work time where the employee may have authorization cards in her pockets or records of phone calls to union representatives on the cell phone. The effect of this is to dissuade employees from bringing any union or protected concerted related material in their pockets, purses, lunch bags, etc.[53]

The use of the phrase "as permitted by law" further undermines the prohibition. Employees are not going to know what is permitted or not. But in any case, use of the email is permitted by law, so the surveillance of that activity permitted by law is unlawful. *See Packingham v. North Carolina*, 137 S.Ct. 1730 (2017) (courts couldn't figure what usage of the internet was permitted until the Supreme Court resolved issue).

The dissents in *Purple Communications* pointed out that any rule allowing employee access to employer email would invariably lead to a clash over the rights of employers to monitor email.

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[53] Its unlawful effect is magnified by that statement in the Unethical Code that employees "must report suspected and actual violations of th[e] Code." Every employee is an informant or snitch for the company even as to "suspected" violations. Failure to comply with the directive to be a management snitch can lead to discipline, including termination.

Unions can bargain all sorts of monitoring issues. The employer could agree not to search for the word "union" or "organize" or "complaint." The union could negotiate a whole series of prohibited search terms. It could agree not to monitor email of stewards. Or it could provide a secure separate email for stewards. The employer could agree that if it uses any email for disciplinary purposes it will provide it to the union in advance. Employees could be expressly assured that unless an email is otherwise prohibited, emails about work related issues will not be the subject of discipline. The union could be allowed to review emails to see if the employer is unfairly targeting employees. And applications used to monitor emails could be provided to the union. Before any special search of emails is conducted of any employee the union could be given notice.

6. Confidential Information

Section 3.2.1 Protecting Non-public Company Information

You must safeguard non-public company information by following company policies and procedures and contractual agreements for identifying, using, retaining, protecting and disclosing this information.

You may not release non-public company financial information to the public or third parties unless specifically authorized by Verizon's Controller.

You may not release other non-public company information to the public, third parties or Internet forums (including blogs and chat rooms) unless you are specifically authorized to do so by a vice president level or above supervisor, and the Public Policy, Law and Security Department.

You may only disclose non-public company information to employees who have demonstrated a legitimate, business-related need for information.

Even after the company releases information, you should be mindful that related information may still be non-public and must be protected.

Your obligation to safeguard non-public information continues after your employment with the company terminates. Without Verizon's specific written prior approval, you may never disclose or use non-public company information.

If you suspect or are aware of any improper disclosure of non-public company information, you must immediately report it to Security or the VZ Compliance Guideline.

The problem with this limitation is it applies to information regarding wages, hours and working conditions, but also applies to information needed by a union to effectively bargain over decisions and the effects of such decisions. For example, if Verizon is intending to close a store, introduce a new product, create a new method of installing equipment, and so on, the Union is entitled to bargain over those decisions and/or effects. Under this language, workers cannot disclose any such information to the Union until it has become public knowledge, often too late to effectively bargain.

Similarly, in an organizing situation, the workers could not disclose information to the union necessary for determining what is the appropriate bargaining unit, such as organizational structure, interchange, and so on.

Financial information itself is sometimes disclosable.[54]

The language would also prohibit employees from disclosing information to a worker advocacy center or a religious organization which was helping the workers organize.

For bargaining purposes this opens to the door to bargaining over every item of company information as to whether it is confidential for this purpose. *Boeing* reinforces this right.

a) Computer usage and the Trump Board, can it overrule *Purple Communications*?

The Board has now invited briefing from the public whether it should overrule or modify *Purple Communications, Inc.*, 361 N.L.R.B. 1050. *See* NLRB, *Board Invites Briefs Regarding Employee Use of Employer Email*, *supra*.

The notice specifically refers to the use of "computer resources to send non-business information" but invites briefing on the broader question of use of "computer resources." The rule at issue is below, entitled "General Restrictions." The case is *Caesars Entertainment Corporation d/b/a Rio All-Suites Hotel and Casino*, Case 28-CA-060841.

It is quite broader than only email:

> Confidentiality
>
> Do not disclose or distribute outside of [Rio's] any information that is marked or considered confidential or proprietary unless you have received a signed non-disclosure agreement through the Law Department. In some cases, such as with Trade Secrets, distribution within the Company should be limited and controlled (e.g., numbered copies and a record of who has received the information). You are responsible for contacting your department manager or the Law Department for instructions.

General Restrictions:

[54] *MCPc, Inc.*, 360 N.L.R.B. 216, 222 (2014).

Computer resources may not be used to:

- Commit, aid or abet in the commission of a crime
- Violate local, state or federal laws
- Violate copyright and trade secret laws
- Share confidential information with the general public, including discussing the company, its financial results or prospects, or the performance or value of company stock by using an internet message board to post any message, in whole or in part, or by engaging in an internet or online chatroom.
- Convey or display anything fraudulent, pornographic, abusive, profane, offensive, libelous or slanderous
- Send chain letters or other forms of non-business information
- Seek employment opportunities outside of the Company
- Invade the privacy of or harass other people
- Solicit for personal gain or advancement of personal views
- Violate rules or policies of the Company

Do not visit inappropriate (non-business) websites, including but not limited to online auctions, day trading, retail/wholesale, chat rooms, message boards and journals. Limit the use of personal email, including using streaming media (e.g., video and audio clips) and downloading photos.

It is certainly arguable that employees would reasonably believe business information to include information about wages, hours and working conditions. The record in the case reflects that there are a group of human resources persons who are employees within the meaning of the Act (and not confidential) who routinely use computer resources, including email, to communicate about such workplace issues.

There are also many Labor Board cases where employees during work time have communicated with managers and among themselves about wages, hours and working conditions and there has been no contention made that those communications are not work or business related. The words "work related" or "business related" are virtually synonymous. Similarly, the words "non-work information" and "non-business information" are also synonymous.

Under *Boeing*, this is arguably a Category 1 rule because employees will reasonably interpret this phrase as not to prohibit communications with supervisors, managers or among themselves or with employees of other employers about wages, hours and working conditions. If that is true, then the rule would not prohibit such communications with third parties about the same business information. *Boeing* allows the union to argue that the rule would permit section 7 activity as reasonably read. *Boeing* can be turned on its head to the union's advantage.

It is also unlikely that employers would want to take the position that communications about wages, hours and working conditions are not business related. Similarly, they cannot argue they

are not work related. If they did, they would lose the confidentiality argument and many other arguments.

The case is compounded by the later reference about being prohibited from visiting "inappropriate (non-business) websites, including but not limited to…." Those words are not words of limitation but words of enlargement. That phrase suggests that there are certain non-business sites that should not be visited, leaving open to employees to visit other non-business sites that would not be deemed as inappropriate. This opens the door then to visiting other non-business sites so long as they are not inappropriate otherwise. Those sites could include professional or trade associations, government sponsored sites, business groups or labor organizations

Additionally, the policy allows limited use of email by stating that employees should "limit the use of personal email…." This implies that personal email is permitted. Although we don't think that we should argue that communications among employees about wages, hours and working conditions is personal, it creates a binary system: either communications are personal or they are business related. If they are personal, they are non-business related.

The *Caesars* rule seems to omit both kinds of communication. As to the non-business or personal, there are limits about what websites can be visited and reasonable limits about the use of such personal email.

On remand the Board will have to determine the impact of the confidentiality rule on the computer usage rule.

7. After Employment Ends

Section 4.6 Relationships with and Obligations of Departed and Former Employees

Your obligation to abide by company standards exists even after your employment with Verizon ends. The following requirements apply to all current, departing and former Verizon employees:

- When leaving or retiring, you must ensure that you return all Verizon property in your possession, including all records and equipment.

- You may not breach any employment condition or agreement you have with Verizon. You may not use or disclose Verizon non-public information in any subsequent employment, unless you receive written permission in advance from a Verizon vice president level or above supervisor and the Legal Department.

- You may not provide any Verizon non-public company information to former employees, unless authorized. If a former

> employee solicits non-public information from you, you must immediately notify Security or the Legal Department.
>
> - Except as authorized below, you may not rehire a former employee, engage a former employee as an independent contractor or contingent workers, or purchase products or services on Verizon's behalf from a former employee unless that former employee has been separated from the company for at least six months.

This raises another bargaining question: Is it a mandatory subject to bargain about rules the affect employees once they leave? Probably. *See Allied Chem. & Alkali Workers, Local Union No. 1 v. Pittsburgh Plate Glass Co.*, 404 U.S. 157 (1971); Gorman & Finkin, *supra*, at Section 21.8.

XIII. TECHNOLOGY WILL CREATE MANY OTHER OPPORTUNITIES

A. BARGAINING OVER DATA RETENTION AND SECURITY

Employers retain data about employees. There are state and federal laws about training, wage, employment, and tax records. All of this data should be subject of retention policies, each of which is subject to bargaining. We can also bargain over how it is stored, who has access, and the security provisions. This also means bargaining about the rules of employee access, management access, and use of the data.

B. BARGAINING OVER DATA BREACHES

There has been wide-spread publicity about the Equifax and many other data breaches. Data breaches have affected retail employers and many employees. These data breaches do affect workers because workers' personal information has sometimes been hacked.

The Union has an obligation to bargain over data breaches and certainly a right to do so.

The Union should propose to bargain over the potential data breaches, particularly about health information, and put in place in the contract language which will deal with those data breaches. Certainly this raises difficult issues for the employer.

C. UNION'S AFFIRMATIVE BARGAINING PROPOSALS

A union could, itself, propose to implement various forms of artificial intelligence. The following would be an appropriate proposal:

> The employees may bring in to the workplace smart watches, handheld devices, laptops and other forms of electronic devices. The employees may use such electronic devices provided they do not interfere with productivity or work. The employer recognizes that any data or information obtained on such devices is exclusively private to the

> employee and the employer may not under any circumstances access such data.
>
> The employer also agrees that, to the extent that it requires the use of any electronic devices, it will pay for and provide those devices. If it provides such devices, it will meet and bargain with the Union about the usage of those devices and the extent to which that information is proprietary to the company or which can be used by the employee or transmitted to the Union.

Such a proposal would offer an opportunity to bargain over many issues.

Apple's smart watch illustrates the problem. Some employees may purchase smart watches. Those smart watches may have significant amounts of data on them and include facial and voice recognition. What would happen if an employee used a smart watch to record the customers he or she was dealing with or even to record their conversations?[55]

These are all issues created by modern technology and can be the subject of effective bargaining.

D. BYOD

Employers are requiring some employees to "Bring Their Own Devices." State law may regulate who pays for such devices.[56] A requirement then that employees use, for example, their personal phone and place applications on them for work would be a mandatory subject of bargaining.

E. ACCESS

It is undisputed that access is a mandatory subject of bargaining. *Purple Communications* creates new challenges. Although *Purple Communications* only requires an employer who allows email access to further allow employees to use the email on non-work time for communications about concerted activity, if email is available the union can bargain over access for use by union representatives, employees, and stewards. This means even bargaining to prevent surveillance or monitoring. This is no different than use of cameras. Although *Purple Communications* is expressly limited to email, it reasonably applies to all forms of electronic communication.[57] Bargaining will allow information requests about who uses the email (or any computer resources) and to review such usage.

Nonetheless, as *Purple Communications* illustrates, use of email and certainly other forms of electronic communication are an issue of access, just as physical access to the work site is a

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[55] To the extent that the state prohibits secret recording, that might not be possible.

[56] *Gattuso v. Harte-Hanks Shoppers, Inc*, 42 Cal.4th 554 (2007); *Cochran v. Schwan's Home Serv., Inc*., 228 Cal.App. 4th 1137 (2014); and Cal. Lab. Code § 2802.

[57] The ALJ in *Verizon New Jersey, etc*., Cases 02-CA-156761, *et al*., agreed that *Purple Communications* applies to other forms of electronic communication. As noted, the case is before the Board on Exceptions and Cross-Exceptions.

mandatory subject of bargaining. Although the Board may set a standard that holds if there is general access to email employees can use, the union can certainly propose email access even if it is not generally granted to all employees or even some employees in the bargaining unit.

A union can certainly obtain email addresses if they exist, because normally they follow a format. Nonetheless, the union should certainly ask for email addresses. The union should then negotiate over the use of email by employees, as well as union access to employee email.

Access may be achieved by a balancing test. *Republic Aviation Corp. v. NLRB*, 324 U.S. 793 (1945). Under a *Lechmere* analysis,[58] outsiders may be banned unless we can make an argument that this is a different form of trespass such as trespass to chattel. The Board has applied *Republic Aviation*'s analytic framework to employee use of a wide range of employer equipment for Section 7-protected communications, including bulletin boards,[59] telephones,[60] and photocopy machines.[61] The same is true of all forms of electronic communication.

Boeing now raises the question of whether we can undercut the employer's rights to limit access, solicitation, distribution and other concerted activity in light of the business justification.

There are numerous cases where employees have used email during work time.[62] This will raise issues under access cases dealing with employees of other employees. *New York, New York, LLC*, 356 N.L.R.B. 907 (2011), *enforced*, 676 F.3d 193 (D.C. Cir. 2012). It will also raise issues of access by those who want to stay after work or come in early to use computer resources and email.

F. BARGAINING OVER MONITORING AND SURVEILLANCE

Although it is generally an unfair labor practice for an employer to monitor or engage in surveillance of protected activity, employers will argue that the monitoring is general and not

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[58] In *Lechmere Inc. v. NLRB*, 502 U.S. 527 (1992), the Court held nonemployee union organizers could not solicit members on private property unless there was no other reasonable means to access them.

[59] *Eaton Techs., Inc*., 322 N.L.R.B. 848, 853 (1997) ("when an employer permits . . . employees ... to post personal . . . notices on its bulletin boards, the employees' . . . right to use the bulletin boards receives the protection of the Act" (quoting *Container Corp. of Am.*, 244 N.L.R.B. 318 n.2 (1979))).

[60] *Union Carbide Corp.*, 259 N.L.R.B. 974, 980 (1981) ("once [the employer] grants the employees the privilege of occasional personal use of the telephone during work time, ... it could not lawfully exclude the Union as a subject of discussion"), and *Churchill's Supermarkets*, 285 N.L.R.B. 138, 155-56 (same).

[61] *Champion Int'l Corp.*, 303 N.L.R.B. 102, 109 (1991) ("An employer may not invoke rules designed to protect its property from unwarranted use in furtherance of pro-union activities while, at the same time, freely permit such use for non-business related reasons.").

[62] *E. I. du Pont de Nemours & Co.*, 311 N.L.R.B. 893, 919 (1993); *Cal. Inst. of Tech. Jet Propulsion Lab.*, 360 N.L.R.B. 504 (2014); *Food Services of Am., Inc.*, 360 N.L.R.B. 1012 (2014); *Grand Canyon Educ., Inc*., 362 N.L.R.B. No. 13 (2015), *reaffirming*, 359 N.L.R.B. 1481 (2013); *Hitachi Capital Am. Corp*, 361 N.L.R.B. 123 (2014).

aimed at union and/or protected activity.

Once again, employers' efforts at monitoring, just like use of cameras, would be the subject of bargaining. The union should ask for copies of all of the computer software used to monitor the email, computer usage or any employee activities. The parties can then bargain about what search or monitoring parameters will be used and the union can bargain over its right to monitor the employer's monitoring to ensure no violations occur.

G. BARGAINING ABOUT SOCIAL MEDIA

Although we do not want to concede always that employers can control use of social media, they have some interest in what is placed on social media and the internet. That creates a bargaining obligation particularly where employers now have created social media rules.

H. WORK PRESERVATION

Unions can negotiate work preservations clauses that either prohibit all subcontracting or limit such subcontracting to firms that are signatory to an agreement with the union. This will be less tricky for the construction jobsite. But since every bit of technology claims to be labor saving it will be easy for unions to justify a work preservation object in the non-construction setting and off the job site in the construction setting.

I. UNIONS CAN NEGOTIATE WHETHER THE WORK IS PERFORMED BY BARGAINING UNIT MEMBERS OR OTHERS OUTSIDE THE BARGAINING UNIT

In *Antelope Valley Press*[63] the Board held that the employer could lawfully insist on "the right to assign" functions to employees outside the bargaining unit. Unions can do the reverse and insist that all technology work be assigned to bargaining unit members. *See also Bremerton Sun Publ'g Co.*, 311 N.L.R.B. 467 (1993), where the employer tried to change the unit description to exclude those performing certain computerized work.

XIV. CONCLUSION

The time is now to start bargaining about technology. Before the off/on switch problem[64] is resolved, unions can gain advantages for their members by offensively raising and bargaining about artificial intelligence.

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[63] 311 N.L.R.B. 459 (1993).

[64] Dylan Hadfield-Menell, et al., *The Off-Switch Game*, https://people.eecs.berkeley.edu/~russell/papers/ijcai17-offswitch.pdf, and Smitha Milli, et al., *Should Robots Be Obedient?*, https://people.eecs.berkeley.edu/~russell/papers/ijcai17-obedience.pdf.

EXAMPLES OF INFORMATION REQUESTS

INFORMATION REQUEST RE: INFORMATION STORAGE AND DATA BREACHES

INFORMATION REQUEST RE: TECHNOLOGY AND ARTIFICIAL INTELLIGENCE

INFORMATION REQUEST ON CODE OF CONDUCT AND NON-PUBLIC INFORMATION

INFORMATION REQUEST RE BROAD MANAGEMENT RIGHTS CLAUSE

INFORMATION REQUEST RE: INFORMATION STORAGE AND DATA BREACHES

Dear Employer:

For purposes of bargaining over any potential data beach, please provide the following information:

1. Provide copies of all software that the company maintains or uses in order to prevent cyber-attacks, hacking or any unauthorized use of the employer's electronic systems.

2. Provide a list of all manufacturers, distributors, and/or software providers that maintain, edit and/or provide software or updates to software along with the frequency of the updates. For each entity, provide the contact person and a copy of any agreement with that entity.

3. A list of all attempted, failed, and/or successful cyber-attacks, hacking or data breaches of which the company is aware for the last five years and provide a statement of the response of the employer to any such incident, if any. If no response was made by employer, please provide any memorandum and/or documentation prepared as to why no response was taken. Provide any internal or external reports regarding each incident. If authorities or governing bodies were notified, provide copies of those notifications.

4. Provide a copy of any plan the employer has to deal with any data breach.

5. Provide a copy of any report from any experts, consultants, or others regarding the employer's data security systems.

6. Provide copies of all computer software or programs that are maintained or used by the company that contain any information about the employees. Provide information regarding data storage of this information, including backup storage systems, data retention policies, and access to the review and revision of such data. Provide information as to who is currently authorized to view, edit and make changes to such data, including names, job titles, and how such data is accessed by each of these individuals. Provide information regarding access controls implemented by you to ensure that unauthorized access is not given to individuals not authorized to view, edit and make changes to such information. Provide information about whether data has been shared, transmitted, or turned over to any individual, authorities, government agency, or commercial entity. Please also provide a copy of any computer software that contains methods to avoid data breaches of that information.

7. Please provide the same information for all entities which provide software or programs described in question 6 above which are requested in question 2 above.

The Union will want to bargain about the data that the company stores and how long it stores that data concerning the employees. Obviously, the less data that is stored and the shorter period for which it is kept, the less likelihood there will be damage to employees if there is a data breach. For this purpose:

1. Please provide a copy of all company document or data retention policies.

2. Please also provide a complete list of all data that is retained that concerns, mentions or relates to employees.

3. Please also provide the reasons why each item of data is stored for each employee.

4. Provide the length of time for storage of information for employees who leave their employment.

After we receive this information, we will want to bargain about these issues.

We request that the employer, among other things, will provide immediate notice of any data breach or potential data breach to the Union. We also expect the employer will agree to the remedies in case there is a data breach. Those remedies will include monetary payments to the employees who have been affected, payment to the employees of any costs they incur, including the time they spent resolving data breaches or the loss of identity, and ongoing consumer protection.

We may propose that the employer pay for a service to monitor the identity and credit rating of each employee because of the employer's record of data breaches or lack of preparedness.

We look forward to bargaining with the employer over these issues.

INFORMATION REQUEST RE: TECHNOLOGY AND ARTIFICIAL INTELLIGENCE

Dear Employer:

The Union is concerned about the issue of whether potential technological changes will have an effect upon our bargaining unit. You have claimed that there is no effect and that it is not a mandatory subject of bargaining. We disagree.

We have seen in this industry many substantial changes over the years. Technology, as broadly defined as all forms of automation, technological change, robotics, artificial intelligence, virtual reality and so on, will impact the workplace. Much of this technology is premised upon the fact that it will involve labor saving devices, which will save on wage costs. This will result in a loss of work. Because technology will impact the way work is done and by whom, it is a mandatory subject of bargaining. Because technology will have an impact upon discipline, working conditions, wages, working hours, and other factors that affect work, it is a mandatory subject of bargaining. Accordingly, we request that you:

1. Provide the Union with a copy of all written plans that concern, mention or relate to technology, as defined and described above. We need this information to evaluate the company's plans to implement any such technology.

2. Provide us a copy of all company business plans that have been in existence for the last ten years.

3. Provide information regarding the manufacturer, distributor and/or company that maintains, edits and provides updates, and frequency of updates for any software used by the employer, or any of its contractors, for any purpose for the last ten years.

4. Provide information regarding the manufacturer, distributor and/or company that maintains, edits and provides updates, and frequency of updates for any software used by the employer, or any of its contractors to manage human relations or work for the last ten years. The Union needs the software in order to evaluate how such software affects the workplace and how they will be implemented in the future.

5. Advise the Union if the company is negotiating with any manufacturer, distributor, and/or supplier of any form of technology. If so, provide us with the name of the entity(ies) with whom the company is negotiating or considering implementing any technology.

6. To the extent that the company has implemented any form of technology in any setting throughout the company for the last ten years, please describe that technology, provide the location where it has been implemented, provide any information regarding the manufacturer, distributor and/or company that maintains, edits and provides updates, and frequency of updates for any software used by the employer, or any of its contractors, and provide all documents that describe, mention or concern that technology, and provide any business plans that discuss the implementation of such technology.

7. To the extent that the employer has any staff members or others who are considering or evaluating technology use for the company, please provide their names and job titles. Please let us know whether we can arrange to meet with them to discuss these issues as part of the bargaining process. Perhaps we should set up a subcommittee using your experts or staff members, as well as Union staff members, to discuss these issues at a separate table.

The Union recognizes that some of this material may affect other bargaining units. However, because we believe that technology may be implemented in the bargaining unit represented by the Union, we think it is relevant to bargaining and that the employer has a duty to furnish this information.

If the employer, however, is willing to commit that it will never implement technology in the bargaining unit, we would understand that there may be no obligation to bargain over this issue. If the employer is willing to agree in writing that it will not implement any technology under any circumstances, we might also agree that the information is not needed.

If the employer is willing to commit in writing that it agrees during the life of the contract and during any negotiating period not to implement any new technology under any circumstances, we might also agree that it is subject over which we will not need to bargain. The employer will furthermore have to agree that the contract coverage doctrine does not apply so that there is no waiver of the Union's right to insist that the technology not be implemented.

We recognize that these requests may invoke some confidentiality concerns on the part of the employer. We stand ready to bargain over any confidentiality agreement if the employer makes such a request and identifies with specificity the information that is confidential.

The issues of technology, again described broadly, are of serious concern to this Union. We have seen many reports in the press and in trade journals about how the industry will dramatically change. This will affect our bargaining unit, and we want to get moving on negotiations over these issues.

INFORMATION REQUEST ON CODE OF CONDUCT AND NON-PUBLIC INFORMATION

Dear Employer:

Your Code of Conduct requires employees to report "suspected and actual violations of this Code, company policy and the law." The Union is concerned that this language is overbroad and employees are not capable of understanding exactly what you mean. The Union respects the right of the employer to enforce reasonable provisions of the Code or other company policies or the law that are necessary and are justified. On the other hand, overbroad rules can interfere with the rights of employees and with the collective bargaining agreement and collective bargaining.

In order to understand and determine how this language has been applied, we need the following information.

We need this information for the period of five (5) years immediately preceding this letter to date. We need that extensive time period in order to ensure that we have included enough time to include all varieties of information that would help us understand how this language has been applied, interpreted and how it works. We also understand that the Union only represents a portion of the employees who are governed by this language. We think it's relevant, however, to provide this information for all employees since we believe these rules are uniformly applied or at least the employer takes the position that they are uniformly applied to all employees.

1. Please provide a copy of all investigative reports regarding questionable or unethical behavior as defined in Speak Up. We don't need the names of the employees involved, and you may redact any identifying information. We do, however, request the reports and any documents that show the results of those investigations. Please provide a separate identifier as to each incident so we can request more detail if we need it.

2. To the extent conduct came to the attention of the employer that was not investigated, provide the same information, explaining what the conduct was and why it was not investigated.

3. The company includes in this provision "conduct [that can] be viewed as dishonest, unethical or unlawful." For the same time period, provide a complete description of all conduct that has come to the attention of the employer that the employer has determined to be dishonest. Provide the date, location, a personal identifier, and the results of any investigation, including any discipline.

4. The company includes in this provision "conduct [that can] be viewed as dishonest, unethical or unlawful." For the same time period, provide a complete description of all conduct that has come to the attention of the employer that the employer has determined to be unethical. Provide the date, location, a personal identifier, and the results of any investigation, including any discipline

5. The company includes in this provision "conduct [that can] be viewed as dishonest, unethical or unlawful." For the same time period, provide a complete description of all

conduct that has come to the attention of the employer that the employer has determined to be unlawful. Provide the date, location, a personal identifier, and the results of any investigation including any discipline

6. The employer takes the position that conduct that "could hurt" the company is subject to the rule. Please provide a complete listing of all conduct engaged in by employees that has hurt or could hurt the employer, which would be encompassed by the rule. Provide the date of the conduct, the nature of the conduct, the manner in which it hurt the employer, and whether action was taken against the employee.

7. The rule also prohibits conduct that could "hurt other people, such as other employees, investors or customers." Once again, provide the same information for all such conduct that has come to the attention of the employer.

Non-Public Company Information

The company's rules repeatedly refer to "non-public company information." [or confidential or propriety] In the Union's view, this language is very vague and unclear.

1. Please provide a complete list of all company information that falls within this category. Because you may take the position that some of this is proprietary, please provide a log that shows the general description of the information, how it is kept confidential, the date the information was developed, a description of the employees within the company who have access to the information, and a statement of how the employer ensures the confidentiality of that information.

2. For all "company confidential information" that has been disclosed in violation of the company policy for the last five years, provide the nature of the information, the nature of the disclosure and the action taken by the employer.

3. Please provide a complete list of all company information that you do not believe is non-confidential.

4. Please provide a copy of all internal memoranda, policies or documents that describe any company policy for determining when company information is "non-public company information."

5. Please provide a copy of any computer software or other electronic applications that are used by the company to monitor "non-public company information."

6. Please provide any protocols used by the company to identify and protect "non-public company information."

The Union would like to bargain over this issue. We think it is necessary that the company identify all the information covered by this rule so that the employees can be clearly advised as to their responsibilities. This may mean identifying each kind of information and identifying it

as “non-public company information” so that employees are clearly aware of what information they can or can’t disclose.

This is particularly important during the course of a bargaining relationship. Much information that is non-public needs to be disclosed to the Union for purposes of bargaining with respect to various issues affecting wages, hours and working conditions. Many of these issues may include bargaining over business decisions, both with respect to the decision and the effects on the employees. We recognize that some of these business decisions are not disclosed publicly, but nonetheless, the employees have a right to both disclose this information among themselves, as well as to the Union for bargaining purposes.

We look forward to working with the employer on these issues.

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INFORMATION REQUEST RE: BROAD MANAGEMENT RIGHTS CLAUSE

Dear Employer:

You have proposed an extremely broad management rights clause or zipper clause. As we understand the clause, the effect would be to allow the employer to make changes in artificial intelligence during the life of the Agreement or after the Agreement has expired while the parties are negotiating a new agreement.

The Union is generally opposed to such management rights clauses because it gives the employer flexibility and the right to make changes that affect the wages, hours and working conditions of our members. Nonetheless, we recognize that there may be issues that the parties cannot resolve during negotiations or that they choose not to address or of which they are uncertain. We are prepared to agree to a management rights clause, but only after we have been able to bargain over those issues that may be faced by the parties during the life of the Agreement or after the Agreement has expired.

In order to determine the extent of any waiver or whether a waiver is even necessary, we intend to bargain over the possibility of the implementation of any form of artificial intelligence. We have seen in this industry many substantial changes over the years. Technology, as broadly defined as all forms of automation, technological change, robotics, artificial intelligence, information technology, augmented reality and so on, will impact the workplace. Much of this technology is premised upon the fact that it will involve labor saving devices, which will save on wage costs. We think it is also clear that there will be an impact because of loss of work, and this will be a mandatory subject of bargaining. Because it will impact the way work is done, it is a mandatory subject of bargaining. Because technology will have an impact upon discipline and other factors that affect work, it is a mandatory subject of bargaining.

1. Provide the Union with a copy of all written plans that concern, mention or relate to technology, as defined and described above. We need this information to evaluate the company's plans to implement any such technology.

2. Provide us a copy of all company business plans that have been in existence for the last ten years.

3. Provide a copy of all computer software used by the employer for any purpose for the last ten years.

4. Provide a copy of all computer software that has been used to manage human relations or work for the last ten years. The Union needs the software in order to evaluate how such software affects the workplace and how they will be implemented in the future.

5. Advise the Union if the company is negotiating with any supplier of any form of technology. If so, provide us with the name of the entity(ies) with whom the company is negotiating or considering implementing any technology.

6. To the extent that the company has implemented any form of technology in any setting throughout the company for the last ten years, please describe that technology, provide the location where it has been implemented, provide any software that relates to that technology and provide all documents that describe, mention or concern that technology.

7. To the extent that the employer has any staff members or others who are considering or evaluating technology use for the company, please provide their names and job titles. Please let us know whether we can arrange to meet with them to discuss these issues as part of the bargaining process. Perhaps we should set up a subcommittee using your experts or staff members, as well as Union staff members, to discuss these issues at a separate table.

The Union recognizes that some of this material may affect other bargaining units. However, because we believe that technology may be implemented in the bargaining unit represented by the Union, we think it is relevant to bargaining and that the employer has a duty to furnish this information.

If the employer, however, is willing to commit that it will never implement technology in the bargaining unit, we would understand that there may be no obligation to bargain over this issue as to the management rights clause. If the employer is willing to agree in writing that it will not implement any technology under any circumstances, we might also agree that the information is not needed. If the employer will agree that the Union has not waived the right to bargain over any technology we might agree that this information is not necessary.

If the employer is willing to commit in writing that it agrees during the life of the contract and during any negotiating period not to implement any technology under any circumstances, we might also agree that it is subject over which we will not need to bargain. The employer will furthermore have to agree that the contract coverage doctrine does not apply so that there is no waiver of the Union's right to insist that that technology not be implemented.

We recognize that these requests may invoke some confidentiality concerns on the part of the employer. We stand ready to bargain over any confidentiality agreement if the employer makes such a request and identifies with specificity the information that is confidential. But because the employer has proposed the broad waiver clause, we believe all of this information is relevant. We are particularly concerned that the employer will assert the contract coverage doctrine as to any technology.

The issues of technology, again described broadly, are of serious concern to this Union. We have seen many reports in the press and in trade journals about how the industry will dramatically change. This will affect our bargaining unit, and we want to get moving on negotiations over these issues.