

**MINUTES OF THE MEETING  
OF THE  
ASSEMBLY COMMITTEE ON COMMERCE AND LABOR**

**Eighty-First Session  
March 29, 2021**

The Committee on Commerce and Labor was called to order by Chair Sandra Jauregui at 6:07 p.m. on Monday, March 29, 2021, Online. Copies of the minutes, including the Agenda ([Exhibit A](#)), the Attendance Roster ([Exhibit B](#)), and other substantive exhibits, are available and on file in the Research Library of the Legislative Counsel Bureau and on the Nevada Legislature's website at [www.leg.state.nv.us/App/NELIS/REL/81st2021](http://www.leg.state.nv.us/App/NELIS/REL/81st2021).

**COMMITTEE MEMBERS PRESENT:**

Assemblywoman Sandra Jauregui, Chair  
Assemblywoman Maggie Carlton, Vice Chair  
Assemblywoman Venicia Considine  
Assemblywoman Jill Dickman  
Assemblywoman Bea Duran  
Assemblyman Edgar Flores  
Assemblyman Jason Frierson  
Assemblywoman Melissa Hardy  
Assemblywoman Heidi Kasama  
Assemblywoman Susie Martinez  
Assemblywoman Elaine Marzola  
Assemblyman P.K. O'Neill  
Assemblywoman Jill Tolles

**COMMITTEE MEMBERS ABSENT:**

None

**GUEST LEGISLATORS PRESENT:**

Assemblywoman Selena Torres, Assembly District No. 3  
Assemblywoman Sarah Peters, Assembly District No. 24

**STAFF MEMBERS PRESENT:**

Marjorie Paslov-Thomas, Committee Policy Analyst  
Sam Quast, Committee Counsel  
Terri McBride, Committee Manager  
Louis Magriel, Committee Secretary  
Cheryl Williams, Committee Assistant

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**OTHERS PRESENT:**

Kerry Sheehan, U.S. Policy Lead, iFixit, San Francisco, California  
Jon Callas, Director of Technology Projects, Electronic Frontier Foundation, San Francisco, California  
Joseph "Joe" Mesirow, Owner and Head Technician, Error Out Computer Services, Las Vegas, Nevada  
Curtis Jones, Owner and President, The Technology Center, Inc., Sparks, Nevada  
Nikolai Christenson, Member, Legislative Committee, Toiyabe Chapter, Sierra Club  
Christi Cabrera, Policy and Advocacy Director, Nevada Conservation League  
Cecia Alvarado, Nevada State Director, Mi Familia Vota  
Dylan Sullivan, Senior Scientist, Climate and Clean Energy Program, Natural Resources Defense Council, San Francisco, California  
Patrick Donnelly, Nevada State Director, Center for Biological Diversity  
Levi Kamolnick, Private Citizen, Washington, D.C.  
John Hadder, Executive Director, Great Basin Resource Watch, Reno, Nevada  
Cynthia Moore, National Lead and Field Consultant, EcoMadres, Moms Clean Air Force, Las Vegas, Nevada  
Myles Ong, Owner and President, J&M Appliance Repair, Las Vegas, Nevada  
Christine Saunders, Policy Director, Progressive Leadership Alliance of Nevada  
Don Renner, President and General Manager, Renner Equipment Company, Yerington, Nevada  
Paul J. Moradkhan, Senior Vice President, Government Affairs, Vegas Chamber  
Dustin "Dusty" Brighton, Director, Repair Done Right Coalition  
Cameron Demetre, Executive Director for California and the Southwest, TechNet  
Robert "Rob" Jackson, Director of Regional Operations, Stotz Equipment, Las Vegas, Nevada  
Timothy Johnson, Senior Director, State Government Affairs, Entertainment Software Association, Washington, D.C.  
Fielding Greaves, Senior Director, State and Regional Government Affairs, Advanced Medical Technology Association, Sacramento, California  
John Keane, Legislative and Policy Analyst, Association of Home Appliance Manufacturers, Washington, D.C.  
Lisa V. McCabe, Director, State Legislative Affairs, CTIA, Washington, D.C.  
Blaze Griffin, Owner and Sales Manager, Carter Agri-Systems, Lund, Nevada  
Walter Alcorn, Vice President of Environmental Affairs and Industry Sustainability, Consumer Technology Association, Reston, Virginia  
Cyrus Hojjaty, Private Citizen, Las Vegas, Nevada

**Chair Jauregui:**

[Roll was called. Committee protocol and virtual rules were discussed.] Our first item on the agenda is a bill hearing on Assembly Bill 221. I will now open the hearing on Assembly Bill 221, which enacts provisions relating to the diagnosis, maintenance, and repair of certain digital electronic equipment. I believe that we have Assemblywoman Torres here to present the bill.

**Assembly Bill 221: Enacts provisions relating to the diagnosis, maintenance and repair of certain digital electronic equipment. (BDR 52-735)**

**Assemblywoman Selena Torres, Assembly District No. 3:**

[Assemblywoman Torres read from written testimony submitted to the Committee, [Exhibit C](#).] Assemblywoman Sarah Peters, representing Assembly District No. 24, will appear with me to present Assembly Bill 221. This measure relates to the right-to-repair rules in Nevada. Today we are joined by Kerry Sheehan, an attorney with a background in intellectual property law; Jon Callas, a cybersecurity expert; Joe Mesirow, a small business owner; and Curtis Jones, a small business owner. They will provide testimony following our remarks.

I want to remind the Committee that I am presenting A.B. 221 as amended. I want to thank the Alliance for Automotive Innovation, the Nevada Franchised Auto Dealers Association, as well as the gaming manufacturing industry for their eagerness to work on the amendment so that we could propose an amendment that was palatable to these associations [[Exhibit D](#)]. Throughout this process, I have been transparent and willing to work with every stakeholder that has reached out.

While some groups have expressed an interest to work towards an amendment with me and other stakeholders, no such additional amendment has been presented. While some members of the technology industry have made claims that they are willing to support increasing the number of certified technicians, they are asking us to do it without any oversight. This legislation creates such oversight. The tech industry as a whole could have implemented these consumer practices without this legislation. However, the industry has not done so. That is what brings us here today.

If you buy a product such as a smartphone or a computer and it breaks, should it be easier for you to fix it yourself? Manufacturers of a wide range of products have made it increasingly difficult over the years to repair things by limiting the sales of replacement parts and charging independent repair providers exorbitant amounts of money to access the parts. I know this firsthand. Throughout college, I worked at a store that completed several different phone repairs. As time went by, the schematics became harder to access and phones often stopped working after third-party parts were put in the device. *The New York Times* recently reported that this trend affects not only game consoles and farm equipment, but also cell phones, military equipment, and even hospital ventilators, the life-saving devices that have proven crucial in saving lives during the COVID-19 pandemic. This legislation specifically focuses on consumer electronics, the devices that every member here has within arm's reach, such as our cell phones.

What is the right-to-repair movement? It guarantees that individuals have property rights over their electronics so they can repair them if they want to. It also ensures equal access to critical repair information like manuals and schematics, as well as fair and reasonable access to parts and tools, including the equipment that you need to diagnose those devices. Quite simply, this bill allows for you to just fix your stuff.

Right-to-repair laws benefit our community, both environmentally and economically. The right to repair promotes small business and a competitive marketplace by preventing inflated costs from manufacturers for replacement parts. It also allows many small businesses to perform repairs that manufacturers will not do and gives consumers more options to foster a more competitive marketplace for small local businesses to thrive.

Hardworking Nevada families have been hit hard by COVID-19. Expanding access to certified tech programs is good for Nevadans. It expands access for business owners to provide consumers with the options that they need. Presently, tech companies limit access to the materials and information that are necessary for economic competition which inherently creates consumer choice. I introduced this bill because this policy will help Nevada business, as you will hear from some of the business owners here today. Furthermore, this policy helps Nevada consumers. Right to repair saves Nevada families money. Repairing electronics instead of replacing them can save American families about \$330 a year. With stronger repair rights, this money can be spent on repairs that will circulate in our local economy.

If consumers in Nevada had the right to repair their devices, the reuse of devices would reduce the demand for natural resources. According to the United States Public Interest Research Group, Americans purchase 161 million new smartphones each year, which takes 23.7 million tons of raw material to satisfy, or the equivalent to an Empire State Building in materials, every six days. Repairing electronics is critical to preventing waste. According to the World Economic Forum, e-waste is the fastest-growing waste stream in the world. In fact, according to the Environmental Protection Agency, 416,000 cell phones are discarded every day in the United States alone. Making it easier to repair these devices would mitigate climate change by reducing the energy consumed in the manufacturing phase of production.

The right to repair would also help repair the digital divide. Early in the pandemic, a nationwide laptop shortage left millions of students unprepared for virtual learning. As an educator, I saw firsthand how families struggled to share one device with several school-aged children while school districts worked to create a 1-to-1 ratio of devices. Due to disruptions in the supply chain, families and schools were left without enough Internet-connected devices for online school and remote work during the summer and early fall of 2020, widening the inequity gap between low-income and high-income families. The right to repair will give schools and other institutions the information they need to maintain equipment and empower the refurbished computer market, saving taxpayer dollars and improving digital access. At this time, Assemblywoman Peters will provide an overview of the bill.

**Assemblywoman Sarah Peters, Assembly District No. 24:**

[Assemblywoman Peters read from written testimony submitted to the Committee, [Exhibit C](#).] Thank you, Assemblywoman Torres. That was a great overview of the need for this bill. I would like to briefly cover the sections of [A.B. 221](#). We are proposing two amendments which we will cover at the end.

Existing law in Title 52 of the *Nevada Revised Statutes* (NRS) regulates trade practices and other commercial activities. Assembly Bill 221 generally requires manufacturers of digital electronic equipment with a wholesale value of \$5,000 or less and sold or used in Nevada to make certain documentation, parts, and tools related to the diagnosis, maintenance, or repair of such equipment available. Users of this information include owners and providers of diagnosis, maintenance, and repair services, who are not under an arrangement with the manufacturer, to provide such services.

Sections 3 through 17 make various definitions. Section 18 of the bill requires an original equipment manufacturer to make available any documentation, part, or tool necessary for the diagnosis, maintenance, or repair of the equipment, as well as any documentation, part, or tool necessary to disable and reset the function of the equipment if it contains certain security functions. Section 18 also sets the costs and terms under which an original equipment manufacturer is required to make such documentation, parts, and tools available. This includes any discount, rebate, convenient means of delivery, means of enabling fully restored and updated functionality, rights of use, or other incentives or preferences that the original equipment manufacturer offers to an authorized repair provider, and any additional cost, burden, or impediment the original equipment manufacturer imposes on an independent repair provider. It creates parity.

Section 18 of the bill generally requires such items, including documentation, parts, and tools, to be made available to an owner or independent repair provider at costs and under terms that are equivalent to the costs and terms a manufacturer makes such items available to an authorized repair provider. Again, it creates parity. It also requires an original equipment manufacturer to make software documentation and tools available at no cost to an owner or independent repair provider.

Section 19 of the bill imposes certain requirements with respect to documentation, parts, and tools to enable the repair of digital electronic equipment that has a wholesale value of \$100 or more and for which the original equipment manufacturer has made an express warranty or guarantee. An original equipment manufacturer must, during the warranty period, make such documentation, parts, and tools available to an owner or independent repair provider at a cost and under terms which are equitable in light of the actual costs to the manufacturer to prepare and distribute the documentation. This makes sure that the original equipment manufacturer is not putting any additional overhead on top of the wholesale costs. This is exclusive of any research and development costs, the ability of the owner or independent owner to afford it, and the means by which it is distributed. Again, we are not putting impediments in place for independent repair providers.

Section 20 of the bill makes a violation of these provisions a deceptive trade practice. Section 21 of the bill provides that the provisions of this bill do not apply to a motor vehicle manufacturer, manufacturer of motor vehicle equipment, motor vehicle dealer, or any product or service of such a person. Additionally, an original equipment manufacturer is not

required to divulge a trade secret or alter the terms of any arrangement with an authorized repair provider, with certain exceptions that purport to waive, avoid, restrict, or limit the obligations of the original equipment manufacturer. This keeps parity in those contracts.

Finally, the provisions of A.B. 221 apply to digital electronic equipment, which includes cameras, cellular phones, computers, gaming devices, or tablets with a value at wholesale of \$5,000 or less, sold or in use on or after October 1, 2021. At this time, Assemblywoman Torres will go through the proposed amendment.

**Assemblywoman Torres:**

As I noted, we have submitted a conceptual amendment which is available on the Nevada Electronic Legislative Information System [[Exhibit D](#)]. We propose to amend section 4 of this bill to specify that the definition of digital electronic equipment does not include gaming devices as defined in NRS 463.0155, which refers to slot machines and mobile gaming [page 1, [Exhibit D](#)]. We also propose to amend this bill to provide that the provisions of the bill do not apply to motor vehicle dealers, motor vehicle manufacturers, and manufacturers of motor vehicle equipment [page 4, [Exhibit D](#)]. While I know that this amendment specifically dealing with automotive vehicles has been a work in progress, it is something that our legal team and the Alliance for Automotive Innovation have been working on over the last couple of days to ensure that this intent we have presented to the Committee is met.

Today, you may hear from those opposed to the bill about their concern of low-quality or dangerous repairs being performed by owners and the potential for fraud or abuse by independent repair providers. Controlling repair and servicing through authorized dealers and licensed repair technicians is not about safety or quality. With electronics like smartphones and computers where data privacy is an issue, the vast majority of repairs, like repairing a screen or replacing a camera, do not require the repair professional to log into the device. Should he or she need to do so, it would require a consumer's consent. Independent repair shops are not more prone to bad behavior than an authorized repair shop. Reported incidents are rare and a review of reports from law enforcement would suggest that employees of authorized repair shops are just as likely to engage in such activity as those of independent shops.

Restricting the right to repair electronics not only hurts the consumer but increases the demand on our environment. Having independent and owner repair shops is critical in maintaining vital competition in the aftermarket repair and service of electronic devices, appliances, and other equipment. As we noted at the beginning of the presentation, I will introduce the next presenters who will provide brief remarks. I would like to introduce Kerry Sheehan, an attorney with a background in intellectual property law.

**Kerry Sheehan, U.S. Policy Lead, iFixit, San Francisco, California:**

[Ms. Sheehan read from written testimony submitted to the Committee, [Exhibit E](#).] I am here on behalf of iFixit, the free, open-source, international repair manual for everything. I would

like to address some of the concerns and claims that you are likely to hear from the big tech lobbyists who are here opposing the bill today.

First, this bill does not require the disclosure of trade secrets. The bill specifically exempts trade secrets from the required disclosures, and manufacturers are only required to disclose information as necessary to provide needed repair information to independent repair providers and owners of consumer electronic devices. Furthermore, the information that is needed for repair does not include the kind of information that is likely to expose production processes for electronic devices. For example, it is not going to include manufacturing schematics.

The information that this bill requires manufacturers to share is just the information that they are already sharing with their authorized service providers. Those authorized service providers might not be under any obligation to keep that information secret. If they are distributing a service manual to every 19-year-old Apple Genius Bar employee across the country, they are unlikely to be able to claim that that information is entitled to trade secret protection. Even if this bill did require the disclosure of trade secrets—which, as I have said, it does not—the Legislature would be well within its rights to craft exceptions to trade secret protections in the public interest. That is fully consistent with the federal Defend Trade Secrets Act of 2016.

Second, this bill does not conflict with any federal intellectual property rights like copyright or patent law. Courts have recognized a right to repair under copyright law for at least 100 years. Even the U.S. Copyright Office has acknowledged that repair is not infringing and has endorsed that the right to repair exists for everything from phones to tractors.

Third, this bill does not authorize any unlawful circumvention of copyright protection systems or any kind of copyright infringement in any way. It merely requires manufacturers to provide device owners and independent repair providers with the very same parts, tools, and information that they are already providing to authorized service providers. It does not authorize further distribution of the works or the creation of any derivative works. Copyright law does not give manufacturers the right to control the repair markets. Courts have long recognized that and have long pushed back against attempts by manufacturers to do so.

Fourth, this bill is not preempted in any way by federal intellectual property law. Federal intellectual property law only preempts laws that aim to create the equivalent rights to those that are already protected under copyright or patent law. We are unaware of any case in which a claim of preemption under copyright law for a bill that does not create those equivalent rights has been upheld.

Finally, courts have long recognized what you and I know to be common sense: if you buy a product, you own it, and you should be able to repair it. If you cannot, our entire system of ownership is undermined. Therefore, I urge you to pass this bill, and I am happy to answer any questions that you may have.

**Assemblywoman Torres:**

I would like to pass the presentation on to Jon Callas, our cybersecurity expert.

**Jon Callas, Director of Technology Projects, Electronic Frontier Foundation,  
San Francisco, California:**

[Mr. Callas read from written testimony submitted to the Committee, [Exhibit F](#).] I am a cybersecurity expert and I have also founded my own cybersecurity companies, including one called Blackphone, which made a security-enhanced Android smartphone. I have also worked on cybersecurity for companies including Apple Inc. and what is now McAfee Corp.

Cybersecurity and cybersafety are important facets of repair. They are not insurmountable obstacles to [A.B. 221](#). The manufacturers of consumer electronics already have to deal with these considerations with their authorized repair centers. These devices carry sensitive information about us and thus they must be protected from prying outsiders. The manufacturers already do this. Some major chains such as Best Buy Co., Inc. are repair centers for brands such as Samsung Electronics Co., Ltd., Apple Inc., and Nintendo Co., Ltd. These manufacturers have procedures in place for safety during repair because there have been cybersecurity incidents in the past. Therefore, the manufacturers put the safeguards in place to protect their customers. They have policies, procedures, and guidelines for the repair centers. [Assembly Bill 221](#) does not require them to do anything that they are not already doing, but merely to extend what they already do for Best Buy to the neighborhood repair place or even to the people who want to repair their own equipment.

Personally, I am the sort of person who takes my car to the dealer and my electronics to those authorized places. However, I do not think that people should be forbidden from doing it themselves, nor should there be any barriers to entry for smart people who want to set up their own businesses and compete with the big chain stores. Consumers are smart enough to make their own choices, and these laws add no additional burden to the manufacturers themselves. [Assembly Bill 221](#) is a boon to both the people of Nevada who want to repair their own equipment and to those who have the drive and imagination to start their own business.

**Assemblywoman Torres:**

At this time, I would like to introduce Joe Mesirow. He is the owner of Error Out Computer Services, a local independent repair shop.

**Joseph "Joe" Mesirow, Owner and Head Technician, Error Out Computer Services,  
Las Vegas, Nevada:**

[Mr. Mesirow read from written testimony submitted to the Committee, [Exhibit G](#).] I am what is called a break/fix technician. I have been helping people fix their computers since 1989 when I was in the Navy. When I was serving, there was only one real data processing technician on board who had the knowledge to fix the PCs [personal computers], and that was me. I was able to replace every single part, from the motherboard to the little plastic power button; either I swapped out the part or broke out a soldering iron and a schematic.

A few years later, I had to replace the motherboard of an Apple III. I was able to find the part from Apple at a decent price at the time without their even batting an eye. If memory serves, when they came out with the Macintosh line, they locked down all the hardware and made it more difficult to find parts.

During my first year as Error Out Computer Services, I had an iMac that had a bad video output. I traced it down to a known issue with a video card. I brought it to one of the geniuses at the Genius Bar to fix. They took it back and confirmed that it was a known issue. However, at that time, they refused to fix it under their extended warranty, which they themselves extended. They wanted \$800 just for the part and another \$300-something for the labor, where I would have only charged \$80 for that repair. I asked them if they would send me the part only; they sternly told me no, it was against Apple policy. Unable to find a working version of that part, I had to return the iMac unfixed and refund the customer's money. I handed this useless 27-inch iMac to him; he followed me out and tossed that once beautiful, three-year-old, \$2300 iMac in the dumpster. That was a sad day because I knew it would be adding to all of the mercury in the environment. After this fun event, I decided to quit doing Mac hardware, period. I do not want the headaches or to have to refund money all because Apple felt like "bricking" the device.

As well, if I fix an Apple product with generic parts, who knows if Apple will decide to limit the functionality of it as they do with batteries. Recently, even the latest line of iPhones will not work if you switch out the cameras. I am unsure if you know this, but most companies include in their user agreements that you, the person who just paid upwards of \$1000 for this new iPhone, are not even the owner of it. That is how Apple can brick your phone if you use third-party parts. Apple's business practices are not unusual for a host of other tech brands in this field. That is my story for this.

**Assemblywoman Torres:**

I would like to introduce one final presenter: Curtis Jones, President of Technology Centers, Inc., which is in Sparks, Nevada.

**Curtis Jones, Owner and President, The Technology Center, Inc., Sparks, Nevada:**

[Mr. Jones read from written testimony submitted to the Committee, [Exhibit H](#).] I started in the computer business about 20 years ago when I moved to Nevada. During that time, we had up to 15 employees at the store. Now, we only have five. We have watched so many businesses disappear in this city because of the megacorporations and the manufacturers' restrictions and unfair business practices. There are only a few computer repair stores left in this town.

Manufacturers have made it almost impossible to repair their products. They no longer offer spare parts or the schematics for us to be able to trace the problem. Individuals have tried to put up videos online of how to repair products. The manufacturers have done everything possible to take them down so that nobody can repair their products. We have watched manufacturers increasingly make their products unrepairable. Two printer manufacturers

that we help have tried to shut down and stop the repair practice. When somebody calls them up to ask about getting their printer repaired, the manufacturers tell them to just throw it away if it is more than a year old. Small businesses and individuals are being financially drained by this practice.

My customers come pleading for me to fix their printers and computers. I have to tell them that I cannot. I cannot get parts. I cannot get any help from the manufacturer to do it. They have to just take it to the dump. They do not want to do that. They do not want to have to go buy a new printer because it is just too expensive. We have to send truckloads of computers and printers to the dump every year because the recycling option is now disappearing. There is no way to recycle anything anymore.

Manufacturers are trying to change the option of ownership into rental so that you no longer own your computer or printer, and they can just do whatever they want. If they are done, they will shut it off. This is going to kill more small businesses in Nevada. We believe that we really have the right to own a product. We believe we should have the right to repair that product. My customers want this right. They want the right to come to my store, to talk to an actual person, and to have someone show them what is wrong with their computer and to fix that computer. They do not want to sit on hold for hours going through endless menus to try to talk to the manufacturer and give up.

I cannot run my business having to send my product off to the manufacturer. Right now, the usual amount of time that they have to wait to get it back if they have to send it to the manufacturer is six weeks. I cannot be without my computer for six weeks. None of my employees or the other businesses that we support can be without their computers for six weeks. I cannot afford to buy new computers every year like the manufacturers want me to do. I cannot afford to buy printers every year like they want us to do. This is running us into the ground.

I have a short story of what happened today. We are an Epson-certified and authorized repair shop. We were brought a printer to repair that was worth about \$800. I finally discovered that this little part right here is the problem. This little part tells the printer which ink to print at what time. We went to the manufacturer to look at the schematics. This part does not exist on the schematics. My technician went through 12 people at Epson today trying to find out what this part is and what the part number is so we can order it. None of those 12 people in their tech department knew what this was because it was not on the diagram. We have to tell the customer that they have to throw away that \$800 printer and buy a new one.

**Assemblywoman Torres:**

At this time, we would like to open ourselves to any questions, concerns, and comments that the Committee may have.

**Chair Jauregui:**

Thank you, Assemblywoman Torres and Assemblywoman Peters, for your presentation, and thank you to your copresenters as well. Committee members, now is the time to message me if you have questions. I am going to start with Assemblywoman Tolles.

**Assemblywoman Tolles:**

Thank you for working with, and continuing to work with, stakeholders and for bringing the experts on. I appreciated hearing their perspective. I have a quick, clarifying question. I heard farm equipment mentioned a couple of times, and I know that there is some amended language to clarify what is not included in this bill. Is farm equipment or agricultural equipment in this bill or is it being explicitly excluded from this bill?

**Assemblywoman Torres:**

No, farming equipment is not included in this piece of legislation. I understand that there was a concern that was perhaps emailed to us earlier today asking the same thing. My understanding, and I am sure that legal counsel could confirm with us, was that when we requested this legislation, we specifically asked that it did not touch farming equipment.

**Assemblywoman Tolles:**

Perfect. I am sure that if that is different, legal would explain it, but that was my understanding as well. I just wanted to make sure that we got that on record to assure those people who were concerned about that. I did not believe that was in there either, and I just wanted to get that confirmed.

**Chair Jauregui:**

I am going to go to our legal counsel, Sam Quast, to see if he wants to address that and just confirm it.

**Sam Quast, Committee Counsel:**

The definition of "digital electronic equipment" means any product with a value at wholesale of \$5000 or less that depends for its functioning, in whole or in part, on digital electronics embedded in or attached to the product. I do not believe that we have a definition of "farm equipment." The bill does not explicitly exclude anything to do with farming or anything of that nature, but if the particular farm equipment that you were discussing did not fall within that definition, then it would be excluded.

**Assemblywoman Torres:**

I want to make it very clear on the record that the intent of the legislation is not to include farming equipment. It is really supposed to be for consumer electronics. One of the issues that came with the drafting of this legislation is that there currently is no definition for consumer electronics. I think when we say the term "consumer electronics," the majority of the Committee knows exactly what I am talking about. They know that we are referring to our cell phones, laptops, and computers; we are not referring to farming equipment or slot machines. I am definitely willing to continue working with stakeholders to ensure that we tighten up that definition a little bit.

**Assemblywoman Tolles:**

I did not get a chance to look up the deceptive trade practices, and we do not have to look that up, but do we know offhand what those penalties are for deceptive trade practices? I want to ask a follow-up on the other side of that.

**Assemblywoman Torres:**

I believe Mr. Quast can respond to the penalties for deceptive trade practices, because I believe that is in our current NRS. I think it is referred to in section 20 of the bill.

**Sam Quast:**

I need a moment to look these up, but the particular penalties a person is subjected to are civil and criminal penalties.

**Assemblywoman Tolles:**

While he is looking that up, I did have a second part to that question. I did appreciate the testimony from the experts. I think that one of the experts said that there would be something within legislative purview to address issues of somebody who is breaching the security of consumers by bugging the cell phone that they just repaired or if they shared schematics with somebody else who was not authorized to receive them. What would be the recourse for them? I am trying to get a comparison of the recourse for the tech company that does not release information compared to the recourse for somebody who does in fact breach security or safety or who shares intellectual property information.

**Chair Jauregui:**

I am going to let Assemblywoman Torres answer that part of your question first, Assemblywoman Tolles, and then we will go back to legal counsel to address the first part of your question.

**Assemblywoman Torres:**

At this time, I would like to go to Ms. Sheehan to answer that for us, if she is still on the call.

**Kerry Sheehan:**

In the circumstance where there was a breach of private information, I would start by saying that these kinds of breaches happen with the manufacturers all the time. These breaches happen with authorized repair providers all of the time. When we think about device security, we think about whether that device rolled off the assembly line as a secure device or whether it rolled off the assembly line vulnerable. If a device is vulnerable from the moment that it leaves the manufacturer's production process, it does not then matter where you are bringing that device because the problem is that the device is vulnerable to attack from anybody, be they an authorized repair provider, the manufacturer's in-house technicians, or the independent repair technician. If the device is secure, then it does not really matter where you bring it; it will not be subject to any kind of attack or intervention.

Now, in regard to what we can do in the event that someone does breach someone else's private information or security on the device when they bring it in to get repaired, I would

expect there to be cause of action under Nevada law for things like breach of privacy, exposure of personal information, and things like that. I am not an expert on Nevada law, unfortunately, although I would love to be. I would say that, generally, most states have existing causes of action for that or existing laws that someone could bring a lawsuit under against the person who does the breach and not necessarily against the manufacturer, unless it is found that the manufacturer produced a device that was not secure. Does that answer your question?

**Assemblywoman Tolles:**

I think so, generally. Maybe we could have legal counsel weigh in after as a follow-up.

**Sam Quast:**

The civil and criminal penalties for deceptive trade practices as set forth in NRS 598.0999 provide for a civil penalty of \$5,000. For the first offense, they would be guilty of a misdemeanor. For the second offense, they would be guilty of a gross misdemeanor. For the third and subsequent offenses, they would be guilty of a category D felony.

**Assemblywoman Hardy:**

I just wanted to go back to the gentleman who owned the business who said that he used to be able to get a phone or computer or whatever and do a vast array of repairs to that device. Over time, there have been fewer and fewer types of repairs that he could make. I was wondering if he could maybe talk a little bit more about the advanced repairs he used to make and what they are allowed to do now. If somebody brings a phone in, what are they allowed to repair?

**Assemblywoman Torres:**

I am going to go ahead and start. I think that I might be able to answer that question to completion. As I mentioned, I used to work at a battery store. I worked on devices like our cell phones all of the time. I worked on repairing cell phones at a time when you could complete more repairs on them. I watched as we had that transition and had fewer and fewer repairs that we were able to make, where, as soon as you would put the new volume button on, the phone would stop operating. That is called "bricking"; I cannot remember which of my copresenters mentioned it, but bricking is when that phone just stops working. The phone is working, you put a new screen in, and then maybe it stops. They make it so that your device stops operating once you put this third-party part in.

Unfortunately, we as consumers do not have access to those original equipment manufacturer parts. We could take it to Apple and perhaps they can fix it; there are certain things that they can do on our device. Or we can take it to Android or the insurance if we have phone insurance. However, oftentimes they will give you a refurbished device. They are not going to sit there and replace your screen for you like you can have done at these small businesses such as those that Mr. Mesirow and Mr. Jones own. That is where you can go in and get your device repaired. Over time, we see those parts become unavailable and updates made to devices that would make that device stop operating.

Additionally, as Mr. Jones may have hit on a little bit in his testimony, schematics have become less and less available. There is the incident that he showed where he demonstrated a part of the device which came out of that machine which was not a part of the schematics. He is an authorized repair provider here in the state of Nevada, and he could not get access to the part that he needed to complete the repair. It was not even a part of the schematics that were sent to him. This piece of legislation will prevent that type of incident from occurring to ensure that they have access to those parts and those schematics.

Schematics, for those of you who did not perhaps work in a tech shop, are like the IKEA picture of what your device is. It is that pulled-apart, put-together version of what your device looks like, be it your computer, cell phone, or tablet. My dad always worked on cars when I was growing up, and they remind me of these old books he had of how to pull apart and put back together your car. I am sure someone else here knows exactly which kind of books they are, but he still has these books at his house for all the old cars he ever had so he could pull them apart and put them back together. I think that this legislation ensures that the schematics, that pulled-apart image, will be available for these consumer electronics so that you can take it to these independent repair shops.

**Assemblywoman Considine:**

I had a question regarding lithium batteries. You hear that it is dangerous if you do not get training and you try to change the battery and your phone could catch on fire. I want to ask if there are any dangers like that and if that is something that repair people already know, or if it is a situation where you should stay away from the phone.

**Assemblywoman Torres:**

I think that our opponents are right. Lithium-ion batteries are dangerous; they are so dangerous that they put them into the devices that most of you probably have within arm's reach. They are so dangerous that you could purchase them at a battery store. I am not contesting the fact that batteries can be dangerous. Alkaline batteries can be dangerous. Motorcycle batteries, where you are literally putting the acid inside of the battery, can be dangerous. Car batteries can be dangerous. In fact, as a child I watched my mom's car catch on fire from a car battery. Anytime that you are working with chemicals, there can be an element of danger.

I definitely understand the intent to ensure that we are keeping our consumers and shop providers safe. I think that there should be packaging on those batteries so that individuals understand that they are dangerous, just like we have packaging on other batteries that let the consumer know that they are flammable and dangerous. But, you know, I think the consumer should still have access to that repair. I know that Assemblywoman Peters would like to make some additional remarks to this.

**Assemblywoman Peters:**

You really have a good grasp on the idea of the potential dangers of these products. I just wanted to add a personal experience. I had a cellular phone, and never did I take it to a third party to get it repaired, and the battery still blew up. This is not isolated to third parties using

or replacing batteries. Additionally, I do not know anybody who would repair a battery. Maybe that is a piece that some repair shops would fix, but that is not a typical practice for these kinds of batteries. They are manufactured, and then if they need to be repaired, they are usually recycled.

**Assemblywoman Martinez:**

When Mr. Jones was talking about the big printer and how he just needed that little piece, I thought about his being able to fix our printers or any of our electronic devices and how this would be good for our environment. We would not be throwing away these big items and it would help reduce our carbon footprint, would it not?

**Assemblywoman Torres:**

Absolutely, Assemblywoman Martinez. When I thought about this piece of legislation, I thought a lot about my grandparents. Growing up, I would go visit my grandparents frequently, and I do not think that they ever replaced anything in their household. It was like pulling teeth with them to replace anything. They had the same radio in their garage that they would listen to the news on when my dad was a kid. They had the same black and white television; I grew up at a time when we did not have black and white televisions in homes. They would just go and fix it. They would get the lightbulb and replace it. They would take it down the street to the repair shop where they could fix it.

Unfortunately, I think we have moved away from that time, and we are seeing more and more e-waste. The reason that we have moved away from that is in large part because of our inability to repair the devices that we have. During the last special session, unfortunately, my phone broke in the middle of the session. As everybody in this body knows, you need your device more so during the session, more so during a special session, and even more so during a special session during a global pandemic. Unfortunately, I just had to go and get it replaced. There was no fix for that issue. I think it would be great to enable and empower Nevadans to get their devices fixed by Nevada businesses.

**Assemblywoman Martinez:**

This would be a win-win for not only the environment, but for the consumer as well then, would it not?

**Assemblywoman Torres:**

I would 100 percent agree.

**Assemblywoman Duran:**

I think that with everything that has been said here and now, it is all so difficult with the technology evolving daily. By having these repair shops get this information, would there be training for them as well as increasing the small businesses that can repair these electronics?

**Assemblywoman Torres:**

I appreciate that question, because it was a part of the conversation that I brought up time and time again as something that I was comfortable amending into our legislation with the

stakeholders. I reached out to stakeholders at the beginning of the session. I made it very transparent what piece of legislation I was working on and how it would impact their industries. I had meetings scheduled for the last three weeks on this piece of legislation. As soon as it was introduced, individuals were reaching out to me to express their concerns for this legislation, and I acknowledged that I was comfortable with our putting in some type of certification training. Some of the companies do have some type of certification training right now. However, there was a lot of pushback against putting it into legislation.

If the Committee wanted to see us allow for there to be that training—if a tech company wants to require some training on it—I am comfortable with that amendment. If a tech company wants to require some type of contractual agreement between the independent repair shop and the company preventing the sharing of information, I am also open to that. I asked that the companies come to the negotiating table in good faith and willing to actually present an amendment that we could then present to this Committee. That is not what occurred here today, although I am definitely open to it. If that is something that would appease the Committee, I would definitely be willing to do so.

**Assemblywoman Duran:**

Therefore, by offering some certified training to these small businesses, it will probably take care of some of these possible questions about trade secrets and so on. I think of a certified used car shop that checks your car over through certain training before they sell it. This will also save money for our constituents throughout the state as well as provide for businesses to increase. This sounds like a win-win to me.

**Assemblywoman Torres:**

Yes, I definitely think that this is a way to increase the amount of gainful employment that we have in the state of Nevada. I think there are a number of tech companies right now that currently provide independent repair providers with certification programs, and I think that is excellent. This legislation allows for them to continue to do so. This will increase the number of viable technicians throughout the state of Nevada, which is good for business, small businesses, and tech companies.

**Chair Jauregui:**

Committee members, are there any other questions?

**Assemblyman O'Neill:**

One of the nice things about being one of the last question makers is that so many of my concerns have already been discussed. I really want to thank Assemblywoman Torres; we had a discussion earlier on this bill. I must say that the more I hear her talk and the more I hear these questions, the more I feel strongly about this bill. I know that this question was one of the first ones asked, but I just need some clarification.

My feeling is just about everything nowadays has a computer in it. I know my television does. We are in the process of remodeling my kitchen, and the stove and microwave all have computer components in them. Once again, I have a question about the definition. I liked

your definition which talks about cell phones, tablets, cameras, computers, gaming devices, tablets, et cetera. How about these other items? Would they be included in the definition? From what you said earlier, it sounds like they would not be. In regard to the rest of it, I liked the part about contracts and training. I think you had some excellent points. If you could just help me clarify the definition; I know it is difficult.

**Assemblyman Torres:**

I think that is a good question and that the dialogue that we have had today with the Committee has helped me realize a need for us to maybe strengthen some of the language. The intent is really for us to be reaching those devices. I agree with some of the points made in this Committee that perhaps the definition as is opens it up. I think that this is a conversation that I am open to continuing to have with legal to see what we can do to narrow that definition down a little bit more.

As I said, there is currently no definition in statute, and I am definitely interested to see if maybe we can find a little bit stronger definition of this. You are right; the intent is for us to really capture those types of devices such as gaming consoles, laptops, computers, and printers. The intent of this legislation is not to capture your refrigerator or your outdoor recreational equipment like all-terrain vehicles and things like that, which I got an email about. That is not the intent of this.

**Assemblywoman Kasama:**

You may have touched a little bit on this, but could you please expand on what the considerations are for data privacy in the bill? How are we going to make sure that that sensitive information is protected within this bill?

**Assemblywoman Torres:**

If Mr. Callas is still on, I think he might be the best person to answer this question.

**Jon Callas:**

The data privacy concerns are the same that they would be otherwise. Some devices have big concerns, and some have little ones. Some devices protect your data and your privacy rather well. For example, your smartphone is extraordinarily good at doing it; your television, less so, and a console that you would play video games on, even less than that. The things that are put in place are there and would be the same no matter who does it. I encourage the manufacturers to do that. Right now, one of the debates that we have going on in state and federal contexts is that, in fact, sometimes these protections are so good, law enforcement would like them to be less good.

**Assemblywoman Tolles:**

I think Assemblywoman Duran did a wonderful job in asking some questions about how this melds with that certification process, and I appreciate Assemblywoman Torres' response to continuing the work through those discussions. I will surrender my last question, as I think we have covered it.

**Chair Jauregui:**

Committee members, are there any other questions? [There were none.] I am going to move this portion of the hearing on to testimony in support. I believe we have some people here to testify on video.

**Nikolai Christenson, Member, Legislative Committee, Toiyabe Chapter, Sierra Club:**

I have worked as an information technology (IT) professional in a wide variety of roles for almost three decades. I am also here today as a volunteer for the Sierra Club. On behalf of the Sierra Club and our more than 40,000 members and supporters in the state of Nevada, I am speaking in support of A.B. 221.

As an IT professional, I know that right to repair is good for Nevada businesses. When I can perform repairs or upgrades myself or farm out repairs to locally operated shops, that will save my company and my customers time and money due to less downtime. It will also give me increased flexibility as to whom I can have repair my equipment. The right to repair also allows repair shop businesses to thrive in Nevada, which is not only good for Nevada customers, but it also creates good-paying, local jobs.

Additionally, the right to repair extends the lifespan of electronic equipment, which has two large benefits for Nevada. First, repairing rather than replacing equipment extends the life span of the equipment, which reduces the equipment's total cost of ownership overall. This is good for Nevada customers and especially those who are disadvantaged economically. Second, because encouraging repair over replacement increases the life span of equipment, it reduces the amount of electronics that get thrown away each year. Electronics typically contain toxic metals which, when discarded, leach into our environment and do considerable damage to our ecosystem.

Companies and their representatives who oppose right to repair make many claims. I have heard them claim that right to repair leads to people who are unqualified making repairs and getting injured and shady repair shops victimizing their patrons. However, I ask you, have any of these companies or trade groups lobbied this body on behalf of worker safety or customer protection regulations in any other context? I have not seen it. The reason for that is because these are not the things that the companies are actually concerned about. There is only one reason that these companies actively oppose the right to repair, and that is money. These companies want to reserve high-margin repair businesses for themselves and encourage replacement rather than repair of the equipment that they sell. The bottom line is the right to repair is good for Nevada businesses, good for the financial well-being of Nevada residents, and good for our environment. I encourage you to support A.B. 221.

**Christi Cabrera, Policy and Advocacy Director, Nevada Conservation League:**

We are in strong support of A.B. 221. This bill will help our environment, save Nevadans money, and create thousands of new repair jobs in our state. The right to repair is critical to waste prevention. Americans purchase 161 million new smartphones every year. This is

especially concerning knowing that a single iPhone requires 75 pounds of ore and 220 pounds of water to produce. Not being able to repair devices means that they get thrown out when they break.

E-waste is the fastest-growing waste stream in the world, and Americans discard nearly half a million cell phones every day. Toxic metals from this e-waste then sit in our landfills and can make their way into our water and soil, leading to harmful contamination. This bill will also benefit our efforts to mitigate climate change by reducing the energy consumed in the manufacturing phase of production. For example, if we held onto our phones for just one more year on average, the emissions reductions would be equivalent to taking 636,000 cars off the road. By giving Nevadans the right to repair their electronics, we can avoid significant environmental impacts. The reuse of devices could reduce the demand for natural resources, reduce toxic waste, and help mitigate climate change, all while saving Nevadans money. We applaud Assemblywoman Torres and Assemblywoman Peters for bringing forward this important legislation, and we strongly urge your support.

**Chair Jauregui:**

We are now going to move on to the telephone line for those wishing to testify in support. I am going to take 30 minutes of testimony in support from the telephone line. We will do the same for those in opposition and those in neutral, taking those who have signed up to testify via video and then taking 30 minutes of testimony from the phone line. Can we please check the phone line for those wishing to testify in support?

**Cecia Alvarado, Nevada State Director, Mi Familia Vota:**

[Ms. Alvarado read from written testimony submitted to the Committee, [Exhibit I](#).] I am here in full support of [A.B. 221](#). Supporting the right to repair is supporting my right to repair. Repairing helps climate change. Eighty-five percent of the emissions impact from smartphones comes from their production. Repairing reduces the flow of toxic waste. E-waste accounts for 2 percent of the waste stream but 70 percent of its toxicity. Repairing saves money. With a stronger repair right, the money spent on repair will circulate in our local economy. The right to repair supports small businesses. Right-to-repair legislation will prevent inflated costs from manufacturers for replacement parts. Mi Familia Vota supports [A.B. 221](#), and we applaud Assemblywoman Torres for sponsoring this bill.

**Dylan Sullivan, Senior Scientist, Climate and Clean Energy Program, Natural Resources Defense Council, San Francisco, California:**

The Natural Resources Defense Council works to safeguard the Earth, its people, plants, and animals, and the natural systems on which life depends. We have around 25,000 members and online activists in the state of Nevada. The National Resources Defense Council supports [Assembly Bill 221](#) because, by allowing people to more easily repair the devices they purchase with their well-earned money and to keep their electronics functioning for longer, this legislation will reduce electronic waste and greenhouse gas emissions. We strongly urge you to support [Assembly Bill 221](#). In the interest of time, I will end here, but I do want to echo the comments of the Nevada Conversation League and other supporters.

**Patrick Donnelly, Nevada State Director, Center for Biological Diversity:**

We are in support of this bill and would echo the previous comments made by previous speakers. The only spin I would put on it in this comment is that Nevada is at the brink of a new gold rush for minerals involved in the renewable energy transition. That includes the minerals involved in powering our devices such as lithium, possibly vanadium, and other minerals. These mines create extensive environmental impacts. If we are going to be pulling these minerals out of the ground, we want to make sure that it is worth it, and that means using these minerals for the maximum possible amount of time. Repairing devices will ensure that we are efficiently using these minerals that we pull out of the ground here in Nevada. We urge you to support this bill.

**Levi Kamolnick, Private Citizen, Washington, D.C.:**

I am an environmental advocate and over the past few years, I have worked on a variety of different environmental and environmental-adjacent issues facing Nevadans. I support Assembly Bill 221 because it is an idea whose time has come. Nevada needs a right to repair because the cost of continuing with the status quo is simply too high. It makes no sense for us to mine natural resources here in Nevada only for them to make their way directly into landfills. Even there, electronic waste and the heavy metals they release are difficult to contain and pose health hazards to nearby communities and wildlife.

Beyond just the environmental concerns, small businesses and consumers stand to gain tremendously from the passage of this bill. For local repair shops to continue to exist, they need the repair essentials that this bill would give them access to, which, for many business owners, are becoming harder and harder to get. As a consumer, I like my phone. I have no desire to buy the newest model, and neither do thousands of Nevadans who choose to do so simply because it is the only way for them to access a functioning device. That is wrong. I want to thank Assemblywoman Torres for courageously introducing this bill to reduce electronic waste, support small businesses that perform a critically important service to their communities, and support Nevada consumers who are sick and tired of buying a new device every time the slightest malfunction occurs. I urge you to support Assembly Bill 221, and I second the support of other groups.

**John Hadder, Executive Director, Great Basin Resource Watch, Reno, Nevada:**

We support the positive comments that we have heard already, and we very strongly support this legislation. We believe that it is time for Nevada, and the rest of the country as well, to think about a circular economy, one in which we minimize and reduce waste as much as possible and follow the model of Mother Nature. Mother Nature has no trash can; she uses everything. I think we need to be just as efficient and mindful in that process for all of the reasons that have been stated already.

Our organization focuses on extraction and mining in Nevada. As has already been stated, mining and extraction is a very environmentally destructive activity, but it also disproportionately affects certain communities. It is important that we recognize that this bill and the right to repair does help to minimize the burden on those communities that shoulder the responsibilities of hosting mine sites. They are going to feel the impacts greatly, more so

than the rest of us. It is important for us to be mindful of that environmental justice aspect as well as the general environmental aspects of being efficient in our use of materials and not wasting the precious resources which are provided to us by this planet.

**Cynthia Moore, National Lead and Field Consultant, EcoMadres, Moms Clean Air Force, Las Vegas, Nevada:**

EcoMadres is a program that educates, engages, and empowers Latino moms and dads to have conversations with lawmakers about the environment's effect on our children's health. Today I am calling in support of A.B. 221, the right-to-repair bill, on behalf of our more than 8,000 members in Nevada. Assembly Bill 221 will help mitigate climate change by reducing the energy consumed in the manufacturing phase of production, which is very important to me as a mother of a three-year-old. I am concerned about the effect that these emissions have on our air quality. This bill will help reduce the emissions impact that comes from the production of smartphones.

I would like to applaud Assemblywoman Torres for working to guarantee that individuals like myself and many other Nevadans have property rights over their electronics so that we can repair our electronics when we want to and wherever we want to go to. Nevadans should have the right to repair their devices, while at the same time doing their part to reduce their emissions and getting us one step closer to our state climate goals. I urge you to please support A.B. 221.

**Myles Ong, Owner and President, J&M Appliance Repair, Las Vegas, Nevada:**

I am calling in support of the bill as well. One of the things that I see that also concerns me a lot is the environmental waste. I own an appliance repair business, and one of the toughest things to do is to diagnose these appliances. Part of the issue is that they are so technical these days with all of these boards, and there is nowhere to plug in anything to diagnose the problem like there is with a car. Cars have a standardized on-board diagnostics sensor that you can plug into to diagnose and do all of these things. Appliances do not have anything like that.

The resources to get the information to diagnose these things are slim to none. I, too, have to go on YouTube a lot to try to get some of this information. What I would love to have the manufacturers do is have it so that all of these manuals are available online, just like how you search online when you do customer support on a laptop. You type in the model number and it pops up the downloads for drivers, updates for firmware, and product support pdfs. They already have this structure in place; they just need to do that for other stuff. I see a lot of people throw stuff away today because they cannot do the repair or try to even diagnose it.

**Christine Saunders, Policy Director, Progressive Leadership Alliance of Nevada:**

[Ms. Saunders read from written testimony submitted to the Committee, [Exhibit J.](#)] I am here in support of Assembly Bill 221. The Progressive Leadership Alliance of Nevada believes that everyone has the right to live in a clean and healthy environment, regardless of their race, income, or immigration status. Addressing our dependence as a nation, especially in Nevada, on an extractive economy is central to our environmental justice campaign.

Currently, poor and marginalized communities are disproportionately affected by pollution and climate change while corporations rake in millions in profits. Assembly Bill 221 would allow Nevadans to repair their technology rather than replacing it, reducing their reliance on new mining of finite resources. Environmental impacts from the mining of the minerals that are required in today's technology can pollute our streams, rivers, and lakes over the long term for centuries and also destroys our sacred indigenous sites.

This legislation also levels the playing field between corporations and Nevadans, particularly Nevada's small businesses. Small businesses that service electronics in our state perform an important and necessary function in our communities. Increasingly, these shops are being forced to tell people that they cannot repair their items as the products that they are able to service are rapidly going extinct. These small businesses could employ thousands of Nevadans with the passage of right to repair, as many overseas manufacturing jobs would be traded for local repair jobs. Assembly Bill 221 is an important piece of legislation that puts people and planet first. We urge your support.

**Don Renner, President and General Manager, Renner Equipment Company,  
Yerington, Nevada:**

I am a John Deere farm equipment dealer with three different stores in the state of Nevada, employing 32 people. I agree with everything that you guys are saying. I was really happy to hear that you want to exempt agriculture. If that is so, we need to send you the language that will help you write the exemption.

Let me just quickly say that the U.S. Clean Air Act requires manufacturers to build base-level tampering safeguards. We have already offered service advisories to our customer base and we are solving the problem by offering these. Fifty percent of my parts go out to customers who actually fix their own equipment themselves. Our offering customer service advisories gives these people a way of being able to solve their problems on the agricultural side. This does not really affect what you guys are doing, but it affects us.

We do not want these people tampering with their equipment. We have already found cutthroat devices which allow these people to come in and change the programs. They are shutting down the emissions systems and safety equipment. John Deere, New Holland, Caterpillar, and agricultural equipment dealers do not need that. It turns into expensive repairs later on at the cost of the customer. If we can, we would like to send the Committee the language to help exempt the agricultural side. Good luck with the rest of the Committee's goals. [A proposed amendment, [Exhibit K](#), and proposed exemption language, [Exhibit L](#), for Assembly Bill 221 were submitted.]

[[Exhibit M](#), [Exhibit N](#), [Exhibit O](#), and [Exhibit P](#) are letters in support of Assembly Bill 221 which were submitted but not discussed and are included as exhibits of the hearing.]

**Chair Jauregui:**

With that, we will move into testimony in opposition. Again, I will take those who are participating via video first, and then we will move on to the telephone line.

**Paul J. Moradkhan, Senior Vice President, Government Affairs, Vegas Chamber:**

I appreciate the conversations we have had with Assemblywoman Torres about the bill and the opportunity for us to be able to share some of our concerns on behalf of our members. As you know, the Vegas Chamber has members across all sectors of the economy. Each industry can be impacted differently as we look at bills like A.B. 221. As a result, we have concerns with the version that has been introduced and the impact it would have on the state's business climate.

Some of the concerns include the ability of companies to recover the research and development costs associated with new products or updates. There is also concern, as you have heard, about data security being compromised for customers when turning their phones or computers over for repair. As well, the handling of lithium batteries without proper training is a concern that we have heard from our members, who are concerned about the safety of employees and the liability for employers in a legal climate. We do believe that the proposed amendment presented tonight will address some of the concerns from our members, depending on their industry. We will continue to review the amendment and follow up with Assemblywoman Torres. We appreciate your transparency in hearing from stakeholders about this bill.

**Dustin "Dusty" Brighton, Director, Repair Done Right Coalition:**

The Repair Done Right Coalition is made up of companies, organizations, and people who care about ensuring that innovative products are repaired and maintained in an authorized manner. Many of the referenced companies that operate in the great state of Nevada are not involved with the coalition. These companies assist in connecting consumers, businesses, and governments through products designed to assist in improving the lives of those who use them. During this pandemic, products and services manufactured by these companies and organizations have been essential in ensuring commerce and personal relationships remain intact.

The Repair Done Right Coalition is currently opposed to Assembly Bill 221, which of course mandates that original equipment manufacturers of digital electronic equipment, or a part of the equipment, sold in Nevada must provide independent repair providers with diagnostic and repair information, software, tools, and parts. This increases safety and cybersecurity risks for consumers and businesses while threatening Nevada's innovation economy. Original equipment manufacturers currently offer consumers a wide range of safe and secure repair options through their authorized repair networks. There are options that currently exist for consumers in getting their devices repaired. Most consumer technology products are composed of complex electronics which do require specialized training and sophisticated test instruments to repair safely. Some types of repairs can be extremely detailed, complicated, and dangerous to anyone without that training. It is particularly important that products containing high-energy lithium-ion batteries, which I know were referenced earlier, are repaired only by trained professionals who can understand and mitigate the hazards associated with installing, removing, or replacing those batteries.

Original equipment manufacturers want to ensure that their products are serviced by professionals who understand the intricacies of their products and have spent time procuring the knowledge necessary to safely repair and return them to consumers without compromising those standards or undermining the safety and security of their products. We feel that state law should not mandate that all manufacturers must provide a how-to manual for any product and provide it to anyone who asks.

More than 22 state legislatures have already reviewed similar legislation to this, but no bills have passed, as states have come to the determination that legislating repair rules for manufacturers created a whole lot of issues—and more issues for consumers than answers. Our members are committed to working to promote digital privacy and security while resisting unwarranted intervention in the marketplace with mandates that compromise consumer safety and protection. We feel that at this time, A.B. 221 does not help Nevada citizens. In fact, it could harm them.

**Chair Jauregui:**

Committee members, are there any questions? [There were none.] We will move on to the next testifier in opposition.

**Cameron Demetre, Executive Director for California and the Southwest, TechNet:**

TechNet is the national bipartisan network of ex-chief executive officers and senior executives that promotes growth in the innovation economy. We represent over 85 companies and 3.5 million customers. TechNet respectfully opposes A.B. 221. We believe that this legislation is searching for a problem, as consumers already have a choice when it comes to repairs of devices. Thousands of repair facilities compete for customer's business each day. Tech companies have every incentive to ensure that customers have ample opportunities to get their products repaired. In fact, our brands depend on being able to provide superior customer service.

This bill raises myriad concerns that extend far beyond the stated intent of providing access to parts, tools, tech manuals, and software for a broad range of electronic products. TechNet and its members are concerned that this bill would have the potential for troubling, unintended consequences, including serious cybersecurity, privacy, and safety risks. Relating to security concerns, A.B. 221 requires manufacturers to provide diagnostic tools and reset codes, as well as permit access to tightly controlled supply chains by unaffiliated and unvetted third parties, which may place consumer devices at risk by placing sensitive information in the hands of malicious hackers. This would bring a new set of cybersecurity vulnerabilities both at home and internationally.

Individuals keep a wealth of sensitive and personal data on their devices such as health information. It is essential that each repair person is properly trained in not only how to repair the device, but also on how to establish a relationship with the manufacturer in order to create a critical accountability link to protect consumers. Enabling untrained and unauthorized third parties to replace and repair device components can result in the disabling of key hardware security features and can impede the updating of firmware. This is

important for device security, consistency, and integrity. The security breach of one device can potentially compromise the security of a platform or other connected devices on a network. Allowing unfettered access to this information is greatly outweighed by the substantial privacy and security risks. I am not going to belabor the safety concerns, although we do echo the comments of Mr. Brighton before me as they relate to lithium-ion batteries.

Lastly, concerning environmental concerns, our companies take tremendous pride in limiting their environmental impact. Electronic product manufacturers have substantial environmental accountability programs and have designed policies to ensure that they are continuously improving the sustainability of their products, reducing the overall amounts of e-waste generated. According to data from the U.S. Environmental Protection Agency (EPA), electronics are the fastest declining products in the municipal solid waste stream. The most recent EPA data shows that e-waste generation declines 5 percent annually. According to a recent study by Yale University, e-waste generation in the U.S. peaked in 2015 and is in a period of extended decline. Our companies have worked diligently to ensure that customers have options while simultaneously protecting the security and integrity of their devices. For these reasons, we are opposed to this measure.

**Chair Jauregui:**

I apologize, Assemblyman Flores; I asked the Committee if they had questions and then I moved on without seeing your message. I am not sure if your question is for the current presenter or for the person who was testifying before, but please, the floor is yours.

**Assemblyman Flores:**

I appreciate the sentiment, and I think we all probably echo that sentiment of data privacy and ensuring that we are protecting the consumer at the end of the day. That is the whole point of engaging in this conversation.

I am curious to understand the certification process. Company A has certain technologies, and obviously they have folks that do repairs and go through a certification process to ensure that those technologies are operating at their full capacities. If they are not, you take the product to the technicians and they make sure it operates correctly. I am curious to understand the difference between the certification process of that company engaging in that market, and then having a third party go through a similar certification process of training, understanding, and being able to achieve the same objective. I am having a difficult time of seeing the through line where one person with this training is capable of achieving all of the safety standards, but not this other individual with a third party.

I know folks who work at these stores. I see a bunch of these cell phone repair stores in my district. I have a friend of mine who specifically works in that industry and who, in fact, actually repaired the cell phone that I use now. He has done numerous repairs himself on this cell phone. I am curious to understand where that line is, where that individual cannot do the repair and it is so dangerous for him to do it, but it is not dangerous for somebody from another company. I see this as everyone getting the training that they need.

**Cameron Demetre:**

I can try my best to answer your question. I think that the nuance behind your particular question is related to who we have an authorized relationship with. We do have authorized repair programs, depending on the company, that you can join, take a 20-hour certification course with a low barrier to entry in 12 different languages, and then be able to provide that service. The issue with this bill is not having that accountability that I mentioned with whoever may or may not be operating, fixing, or repairing one of these devices.

**Assemblyman Flores:**

Would you support this bill if there was language in there that said you have to have a certain, minimum standard of training and certification? Would that then make you more comfortable by setting a floor for what every individual and technician working in this space must have, and if you meet that minimum standard, you can come into this space? Would you be in support of the bill if it had that specific language in there?

**Cameron Demetre:**

I think that we are at fundamental odds and have fundamental concerns with this bill and the expansion of potential liability. That is not what is before us today, so the answer to that question is no.

**Chair Jauregui:**

Can we check the telephone line for those wishing to testify in opposition?

**Robert "Rob" Jackson, Director of Regional Operations, Stotz Equipment, Las Vegas, Nevada:**

We have 25 locations across the Western U.S., with one of our locations in Las Vegas, Nevada, in Assemblyman Frierson's district. Overall, I have been happy with the conversation and the direction it has gone. We are not involved with cell phones, obviously, and that has been distinguished through several of the comments that have been made. The equipment that we service and represent have more implications around safety and other issues, so I think that we would like further clarification on what digital electronic equipment actually represents.

I want to give you a quick example. If someone were to take a generator which is under \$5000 which had digital electronic equipment as a part of it, and they were to alter the emissions or safety features for any reason—which we have seen happen, people do it now—if we allowed that or allowed people to alter any part of how these machines operate, then there would be serious safety issues we would have to consider. That originally was my opposition, especially as related to farm equipment. If you change the revolutions per minute limits on a machine, you can have catastrophic failures of equipment and death or serious injury. If you change safety devices or sensor requirements on a generator, you could have fires, electrocutions, and other issues.

We are definitely not cell phones. I do like the idea of having your cell phone repaired and your computer repaired, and I like the idea of having more accessible options. I know that in

our industry, we take great care in trying to help our customers repair. About 60 percent of John Deere parts are sold over the counter to consumers who repair their own equipment. We provide manuals, training, and equipment. Consumers can even acquire the same tech support that we get at the dealership, which is currently offered through John Deere. Therefore, I like the direction that this is going in. I would urge the Committee to further discuss and define what digital electronic equipment is, and I would argue that anything that has a motor in it or moving components that could cause damage if repaired inappropriately by a consumer should be exempted from the current bill.

**Timothy Johnson, Senior Director, State Government Affairs, Entertainment Software Association, Washington, D.C.:**

I am here tonight to respectfully oppose A.B. 221, which seeks to create a right-to-repair mandate. The Entertainment Software Association (ESA) serves as the voice and advocate for the U.S. video game industry. The makers of all three console systems—Microsoft Corporation, Nintendo Co., Ltd., and Sony Corporation of America—are ESA members. People who play video games represent a diverse cross section of the U.S., spanning every age, gender, and ethnicity. Not only do 75 percent of U.S. households have at least one gamer at home, our industry also has an economic footprint that touches every state.

Consoles offer security safeguards that help protect our players' personal data and sensitive information, which may be stored locally. Accordingly, permitting repair by unauthorized parties may create risks that bad actors could exploit. Top games can take several years to develop and cost tens of millions, or in some cases, more than a hundred million dollars to produce. A right-to-repair mandate poses a high risk to video game creators and other copyright owners who rely upon the secure media ecosystem of the game console to safeguard their copyrighted works against sophisticated piracy efforts.

Piracy of video games downloaded from the Internet is a billion-dollar problem for the industry. It is a fact that there is a thriving modification market offering tools and other ways to modify game consoles in order to play these illegal games downloaded from the Internet. To help prevent content theft, video game software, firmware, and hardware have built-in security features known as technological protection measures to prevent the play of unauthorized video game content or access to other content on the console.

Technological protection measures help create a secure media platform. The biggest benefit of a secure media platform is that it provides video game publishers, music distributors, and video game streaming platforms with assurances that their content will be safe. Sharing hardware, schematics, sensitive diagnostic information, tools, and security-related reset codes with unauthorized third parties would compromise the security of the entire platform and harm console makers and copyright owners. It is important to note here that Section 1201 of the Digital Millennium Copyright Act prohibits the trafficking of tools used to

circumvent technological protection measures such as those protecting video game consoles. A state cannot override federal law to require tools be provided in order for an unauthorized repair person to fix a device. If it does, there would likely be a preemption lawsuit against the state.

Every day, millions of Americans enjoy playing video games on their consoles. The continued viability and success of the gaming console business is dependent upon a trustworthy and secure delivery platform. If platforms are compromised—which we believe they will be if a right to repair mandate is imposed—they will hurt game publishers, console makers, and consumer trust in a protected and entertaining gameplay environment.

**Fielding Greaves, Senior Director, State and Regional Government Affairs, Advanced Medical Technology Association, Sacramento, California:**

I am with the Advanced Medical Technology Association today to respectfully oppose. Medical technology frequently incorporates elements of consumer electronics such as cameras and computers, so we think that we are squarely within the scope of the bill. Likewise, consumer electronics today play an increasingly important role in health care. We are opposed in principle because the significant risks to patient safety and cybersecurity, including the risk of death or serious injury from negligent repair products, as well as significant liability concerns, are not addressed in the bill.

Fundamentally, the bill is not needed. As you have heard, there are already a vast array of authorized service people in the market and no objective evidence of a shortage of them or of a delay in getting devices repaired. Finally, independent repair people are totally unregulated today. There is no licensure, training requirements, or oversight of this industry at all. In an age of high-profile cyberattacks on hospitals throughout the health care system and on consumer electronics, this is simply too dangerous and risks giving the keys to the kingdom away to unknown third parties. Respectfully, we please request your no vote on this bill before you today. I am available to answer any questions.

**John Keane, Legislative and Policy Analyst, Association of Home Appliance Manufacturers, Washington, D.C.:**

We are in opposition to A.B. 221. The Association of Home Appliance Manufacturers believes that this bill raises far more safety concerns than it seeks to address. The Association of Home Appliance Manufacturers represents the entirety of the appliance industry, from your dishwasher to your electric range to your refrigerator, which require repairs that include the handling of electricity, gas, and water. In fact, appliances are subject to electrical codes, building codes, plumbing codes, and safety requirements to ensure appliances are handled safely.

As well, keep in mind that repairs in our industry have to be repairs that occur in people's homes. The provisions here take on additional meanings. That is why it is paramount to have an authorized repair professional who is trained to properly handle the products to make sure that the customer remains safe. These authorized repair providers use parts that have been tested and qualified to reduce liability and meet the safety requirements that the home

requires. Opening up the repair process to third parties could lead to using incorrect or counterfeit parts, resulting in potential safety issues and performance degradation. Faulty repairs could also lead to property damage, copyright infringement, and could affect the future of the product. With that, I strongly urge you to oppose A.B. 221.

**Lisa V. McCabe, Director, State Legislative Affairs, CTIA, Washington, D.C.:**

[Ms. McCabe read from written testimony submitted to the Committee, [Exhibit Q](#).] I am here on behalf of CTIA, the trade association for the wireless communications industry, in opposition to A.B. 221. The marketplace already provides a wide range of consumer choice for electronics repair without the mandate imposed by this legislation. For example, manufacturers have relationships with authorized repair providers. These providers, which include local small businesses, have received the appropriate training from the manufacturer and have the qualifications to ensure that repairs are done properly and safely.

Manufacturers go to great lengths to produce products of the highest quality. Authorized repair ensures that those products maintain their high quality and guarantees that repairs meet the manufacturer's standards. In addition to authorized repair providers, manufacturers may offer walk-in repair options at retail locations as well as mail-in services. Insurance providers may also offer authorized remote technicians that may even travel to a consumer to perform a repair. Consumers can currently use independent repair today, although manufacturers cannot guarantee the quality assurance of independent repair providers.

We are concerned that this legislation would have a number of unintended consequences for the operation of electronic devices. For example, even if an independent repairer is provided the technical information required under this bill, without the specific training on reassembly of the device, they could unintentionally cause unintended performance problems or put stress on a device's frame, which could make it break more easily when dropped.

Separate from authorized repair, CTIA offers a learning management program that creates a network of independent repairers to help consumers identify qualified independent repairers. CTIA is happy to work with the chambers of commerce to share awareness of this program in Nevada. This is a marketplace response with no need for legislation. We respectfully oppose A.B. 221.

**Blaze Griffin, Owner and Sales Manager, Carter Agri-Systems, Lund, Nevada:**

I am a business owner in Nevada. I own two farm equipment dealerships in Lund and Winnemucca. We employ 31 people full-time. I believe that the way the bill is written, it may have some unintended consequences for the farm equipment industry.

As an equipment dealer, we help and service hundreds of farmers across the state. These customers currently have access to service manuals, special tools, and parts to repair their machines. In the very near future, they will have access to the computer diagnostic programs

that will allow them to recode and diagnose. I know that Massey Ferguson and New Holland, whom we represent, are in the process of rolling that out. No further legislation is necessary. The customer already has the ability to repair their own farm equipment that they buy from us, if they choose.

One unintended consequence that would come from this is the customer's ability to have access to change software and engine controllers. This becomes an issue in two key areas: safety and used equipment values. Safety is a concern because customers would be able to change the chip in the engines in order to get more horsepower out of them. More power is not always better. These machines are expensive and pull expensive implements. If a tractor is overpowering an implement, it is not only bad for the equipment, but will result in severe safety issues, such as the implement being pulled apart. For the operator, that can result in serious injury or death.

Also, as changes are made to equipment, it will substantially change the trade-in or book value of the machines. Auctions are already seeing equipment that has been altered and will no longer work correctly. This costs people serious amounts of money to get fixed. We as dealers will not be able to offer the high trade values because machines are altered, and we will not be able to sell them unless we bring them back to original factory specifications. This will hurt the farm equipment owners. I would like to formally request that you include the exemption language submitted by the Far West Equipment Dealers Association in order to avoid the unintended consequences that this bill will create for the end users of farm equipment [[Exhibit K](#) and [Exhibit L](#)].

**Chair Jauregui:**

Committee members, I would like to go back to one person who wished to testify on video in opposition that I skipped.

**Walter Alcorn, Vice President of Environmental Affairs and Industry Sustainability,  
Consumer Technology Association, Reston, Virginia:**

I want to encourage the Committee to oppose this legislation. The Consumer Technology Association (CTA) is probably best known as the owners and producers of the Consumer Electronics Show (CES). I found some of the discussion earlier quite interesting. Our organization used to be called the Consumer Electronics Association, and of course, CES was short for the Consumer Electronics Show. Just to provide some insight on why those names changed, we found that really, devices were not the only things that were carrying electronics. Some of the discussion about the definitions and how, currently, there is no definition in statute for consumer electronics shows that these things have really changed.

We are seeing electronics embedded in so many products. That has been great for CES and for the economy overall. However, I would very much encourage you to be cautious as you write legislation with this kind of mandate. With the "Internet of things" and electronics being embedded in so many products, I do not know if you can come up with all of the exemptions that you would want. I would encourage you to think carefully about that.

As you know, CES is the largest business gathering in the United States, if not the world, depending on how you count that. It brings about \$290 million in a non-pandemic year to the state's economy.

My comment is just going to focus on the environmental issues, and I would be happy to answer any questions. I have really worked for the past 20 years on electronic recycling issues and e-waste as an independent consultant before coming to CTA ten years ago. One of the things that you should know is that not only are electronics the fastest declining portion or product in the municipal solid waste stream in the United States, as was mentioned by a speaker earlier, but the discussion on smartphones—which I think has been a focus of a lot of folks around this legislation—and the idea that people are throwing away smartphones and other mobile devices is just not backed up by the data.

We at CTA do a national consumer survey every couple of years. We ask folks what they do with their various products when they are done with them. What we found is that only 2 percent of consumers actually throw their old smartphones in the trash. Of course they are not throwing their smartphones in the trash; they are valuable. Twenty percent of consumer respondents say that they trade it in because these used devices have a reuse value. They actually are being repaired. By the way, three times as many of those who throw them away give them away or sell them. Another three times as many recycle them. There actually is a very vibrant and active reuse-and-repair market out there. I think one of the things that we are hearing is that there is a fight about who does it and about market share. There may be some other reasons that you choose to enact legislation like this. However, the concern about e-waste should not be one of them. It is just not backed up by the data.

I will close by saying that I was very interested in the speaker earlier who is an authorized printer repair professional. I do not know what happened in that situation. That is not a situation I have heard before at a hearing like this. Certainly, as a representative of manufacturers and retailers, we would want to make sure that these products are repaired correctly, and then when they are completely done with their useful life, that they are recycled appropriately.

**Assemblyman Flores:**

I do not know that this is necessarily a question that you are best positioned to answer, but I have now heard it mentioned that this legislation has been proposed by numerous other states, or something similar to that. I think I heard that it was in 22 or 25 states and that the legislation did not go through for one reason or another. I only mention that because I think it is alarming that you have 22 states that recognize there is an issue in this space. It is not just Nevada.

Consistently, legislators who walk in very different shoes and who have very different or even similar environments to Nevada are all engaging in this conversation. For us to dismiss the fact that 22 states are engaging in this dialogue, and to discuss the fact that the bill has not moved or passed elsewhere, is not a way to say that Nevada is on the wrong track. It means that collectively, almost as a country, we are moving in this direction where we recognize

that there is a space that requires us to intervene. We see now that we have to insert ourselves to try and do something collectively for the benefit of the consumer and everybody else, because the private market on its own has created issues.

I keep hearing the term "unintended consequences." We have seen scenarios where cell phones were blowing up in people's pockets. That was an unintended consequence and obviously, the industry did not mean for that to occur. I have a hard time understanding where this notion is coming from, that somehow being transparent, allowing more people to come into this space and allowing more market share for small businesses, is going to create an environment where everybody is being reckless. What data supports that notion?

I am very big on cars and I love my cars. I will go to five different shops and they will tell me that I cannot do something. I am not equipped, I do not have the knowledge, training, or expertise, and so I find the right shop to be able to do that. I see this as doing the same thing with technology. We will open the playing field and let people come into the space. That does not mean that everyone is going to partake in it. Not everybody is going to participate or say they will do it. I am having a hard time understanding this notion that, if we open up and allow more people to come into this space where these constraints have been raised, that it is going to lead to everybody doing all of these repairs all of a sudden and causing harm to the consumer. Could you help me understand that a little better?

**Walter Alcorn:**

I have a couple of thoughts. One of the reasons that consumer electronics manufacturers are so sensitive is because their business model is based on their brand reputation. By most people's tracking, these are the most valuable brands in the world. Unlike cars, when you get a five-year-old phone, you at this point do not expect others aside from the manufacturer or their authorized representative to have gotten inside of it or put different parts in it. It is just how we have gotten here thus far. The concern that these companies have in protecting their brands—and these products still carry their brand names on them—is, in particular, that the repairs will be done wrong or that substandard parts will be included, and that basically, the customer experience will be different. I am not saying that is right or wrong—that has been a driver, from what I can see.

I do not want to criticize anybody for thinking about this idea in general because, frankly, when automobile repair came up about seven or eight years ago, the organization that I work for, CTA, supported it for some of the same reasons that I think you are sympathetic to. You work on cars. We have tremendous history in this country of do-it-yourself repairs and independent repair shops for automobiles. As the car industry has changed and evolved and we are now actually talking about safety features and self-driving vehicles, we as an organization no longer weigh in on that issue because the industry and cars have changed. Bumpers now have sensors in them that are tied into their computer systems. Things have gotten a lot more complicated. I know I am not giving you any good answers, but it is just that we are seeing the markets changing as well. Our position has evolved with that.

**Assemblyman Flores:**

I think we all echo your sentiment of safety. I appreciate that lens and tone. I just think that there is a place for us to come into this and uphold that value of safety while also upholding the value of other folk coming into the space.

**Chair Jauregui:**

Mr. Alcorn, I apologize for skipping you altogether at the beginning of the opposition. I am glad we were able to get you in and get your testimony on the record.

[[Exhibit R](#) and [Exhibit S](#) are letters in opposition to [Assembly Bill 221](#) which were submitted but not discussed and are included as exhibits of the hearing.]

I do not have anyone signed up to testify in neutral on video. Can we please go to the telephone line for those wishing to testify in neutral?

**Cyrus Hojjaty, Private Citizen, Las Vegas, Nevada:**

I will take the neutral position. I have heard a lot of good arguments on both sides. I think you should maybe change a few things in this bill so that we can keep protecting the environment.

**Chair Jauregui:**

Assemblywoman Torres, would you like to give any closing remarks?

**Assemblywoman Torres:**

I am going to go ahead and defer to Assemblywoman Peters who is going to clarify a couple of things for the record. I will then go ahead and give my closing remarks.

**Assemblywoman Peters:**

I think that it is really interesting that Mr. Alcorn said that one of the most important parts of the business model of these tech companies is how they are represented to their users. I think that is kind of in line with what Assemblyman Flores was saying about car maintenance. Word of mouth means a lot when you are dealing with someone's really expensive purchase. For most people, I think a phone is one of the biggest purchases of their life. A gaming console is one of the biggest purchases of their life. That is worth taking the time to vet out who you take those pieces of equipment to. I would also be interested to see if they have a survey of folks and their experiences with the Genius Bar, and just how well that rates among its users.

I wanted to talk a little bit about the idea of environmental waste. When I was 12, I built my first computer from scratch. When I bought my first laptop in college, I was so disappointed that I could not do the work on it myself and had to find somebody to repair it for me. Then I bought my second laptop and I could not find anyone to repair it for me, because it cost too much to find the repair pieces and they told me to just buy a new one.

I hear mostly from constituents about how and where to find a place to recycle or reuse their tech equipment such as their cell phones, printers, and gaming devices. I, as an environmentalist, have in my basement a pile of old tech equipment and I cannot find a place to take it to because it costs too much to pull it apart and recycle it, and nobody repairs them anymore. Maybe my family and I are oddballs, but I think that is a reality. That figure of only 2 percent of people in these surveys who are saying that they throw away their equipment is, I think, underrepresented.

I also wanted to talk a little bit about the replacement of components within those devices. We heard a lot about the idea of data security and breaking the digital information on phones. I just want to be clear that when you are replacing the components of a phone, it is not the digital information held on the phone. You are replacing the chip that has the digital components already on it. It is typically an authorized chip, which is part of the point of this bill, to get more people access to those authorized pieces of equipment that would be used to replace those parts in your cell phone. It does not actually touch the digital data that the opposition was referring to.

I want to mention that people who tinker are the people who end up doing these repairs as a small business owner. These people have an immense amount of integrity related to the experience of being a tinkerer and working in this space. I do not think that you go into the work of technology without having some vested interest in the parts and pieces that you use, and in finding ways to make it operational again. It is so defeating, from experience, to not be able to work on your own equipment or to not be able to make something function again when you know you have the capacity to do it, but you cannot find the resources.

**Assemblywoman Torres:**

[Assemblywoman Torres read from written testimony submitted to the Committee, [Exhibit T](#).] I want to reiterate a point that was made previously in this Committee hearing. There are currently over 22 states looking at policy like this. The reason we are looking at policy like this is because the consumers across the nation know that it is time for us to be able to just fix our stuff.

I would like to address a couple of points from the opposition. I really appreciate the support and opposition coming together to discuss this legislation today. I know that various industries have asked us to strengthen the definition of consumer electronics, and I am committed to continuing this discussion. In fact, I have emailed a couple of them throughout this hearing to ensure that we set up those meetings in a timely manner.

We have all heard a lot of concerns about cybersecurity and consumer privacy. Allowing for independent repair providers does not put the consumer at a greater danger than they have by giving their password to a friend or a key to the cleaning company or the pool guy. I know I am guilty of that myself. I give the key to somebody and tell them to just go do it because I know that I am not going to be home until late in the evening. Many of us do that. That puts our house in as much danger, if not more, than it does when we give our cell phones over.

I am open to language that permits tech companies to impose certification requirements and create contracts between tech companies and independent repair shops. I have said that I am open to that amendment over and over again, before this hearing in meetings and again during this hearing. TechNet said that there are certification programs available at some tech companies. I appreciate that they have those programs in place. I want to see us be able to expand those programs so that we have more independent repair providers here in the state of Nevada.

As I said in this Committee meeting, I am open to continuing to work with every single stakeholder to create a floor or mandatory training for independent repair shops that wish to have access to the schematics, manuals, tools, and parts. I hear that that is one of the concerns, and I am willing to work on that. However, I also hear from my independent repair providers that this should be accessible. There should be a mechanism for them to be able to achieve that goal.

To the argument that lithium-ion batteries are dangerous: there are not too many people in this legislative body that understand the danger of batteries more than me, a former battery person. I understand that argument. I think it is extremely important that there be correct labeling. I believe that there are currently some federal mandates for how we label items that are flammable and dangerous. I am open to perhaps putting that into this legislation, that any dangerous components must be properly labeled and identified, and how to put it out is part of that packaging as well. I hear that concern.

To the concern that this bill is not needed in Nevada, I think every single small business owner and consumer who called in today to say that it is necessary would disagree. I think that this is very much a piece of legislation that we need here in Nevada, and I think 22 other states would agree with us.

I want the members of this Committee to think about their cars. When has it been acceptable for you to be required to go to your dealer to replace a tire or bumper on your car? If your car stopped working every single time you went to a mechanic that was not the dealer, this Committee would be enraged.

This bill prevents substandard parts from being put into these devices because it requires that the tech industry make the original equipment manufacturer (OEM) parts and tools available that independent repair providers need to diagnose those issues in order to provide the consumers with a phone that is the same. It would not be a third-party part. It would be the OEM part. Currently, repair providers cannot get access to these parts and have to repair them with third-party parts from other places. That, to me, is a bigger consumer concern than this piece of legislation. When a consumer purchases a product, they should have the right to repair it.

This will create some competition for tech companies. I think this is what is best for Nevadan consumers and Nevadan small businesses. Independent repair providers throughout Nevada are small businesses. Expanding access to repair shops will help Nevadans find gainful employment and will help Nevadan consumers repair their devices. I urge you to support A.B. 221.

**Chair Jauregui:**

I will now close the hearing on Assembly Bill 221. The last item on our agenda is public comment. Do we have anyone signed up for public comment?

**Cyrus Hojjaty, Private Citizen, Las Vegas, Nevada:**

I have seen a lot of progressive organizations out there. I do listen to many progressive broadcasts. However, I noticed that many of these organizations are missing out on a lot of important issues. If you look at the Progressive Leadership Alliance of Nevada and many others, they do not talk about the greed and recklessness of Wall Street. They do not talk about the grotesque levels of income inequality, where chief executive officers (CEOs) are making 500 times the typical employee. I do not even hear that from the Culinary Workers Union.

They do not talk about campaign finance reform or the ongoing military interventions overseas, which are actually intensifying. They do not talk about the abuse of lobbying power from many sectors like the casino lobby. I think what is happening is that they are focusing too much on social justice issues. In other words, they are more focused on the racial pay gap and not so much on the CEO and worker pay gap, unfortunately.

With the recent elections of the Nevada Democratic Party chair, I am very optimistic because Judith Whitmer won. I know her. I have had great conversations with her. She is really aware of these issues and aware of the dirty political machine in this state. Hopefully, all Nevadans can unite, work together, have a common goal, and get the elephant out of the room to send a message all across the United States. I understand that there are a lot of important issues, but I feel like a lot of important issues are being tossed out of the window.

**Chair Jauregui:**

I want to take a moment to thank the Committee staff and all of the members for being here on a Monday evening. I appreciate all of the great questions and great discussions. Our next meeting is scheduled for Wednesday, March 31, 2021, at 1 p.m. With that, our Committee meeting today is adjourned [at 8:18 p.m.].

RESPECTFULLY SUBMITTED:

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Louis Magriel  
Committee Secretary

APPROVED BY:

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Assemblywoman Sandra Jauregui, Chair

DATE: \_\_\_\_\_

## EXHIBITS

[Exhibit A](#) is the Agenda.

[Exhibit B](#) is the Attendance Roster.

[Exhibit C](#) is written testimony dated March 29, 2021, copresented by Assemblywoman Selena Torres, Assembly District No. 3, and Assemblywoman Sarah Peters, Assembly District No. 24, regarding [Assembly Bill 221](#).

[Exhibit D](#) is a proposed conceptual amendment to [Assembly Bill 221](#), presented by Assemblywoman Selena Torres, Assembly District No. 3.

[Exhibit E](#) is written testimony presented by Kerry Sheehan, U.S. Policy Lead, iFixit, San Francisco, California, regarding [Assembly Bill 221](#).

[Exhibit F](#) is written testimony presented by Jon Callas, Director of Technology Projects, Electronic Frontier Foundation, San Francisco, California, regarding [Assembly Bill 221](#).

[Exhibit G](#) is written testimony presented by Joseph "Joe" Mesirow, Owner and Head Technician, Error Out Computer Services, Las Vegas, Nevada, regarding [Assembly Bill 221](#).

[Exhibit H](#) is written testimony presented by Curtis Jones, Owner and President, The Technology Center, Inc., Sparks, Nevada, regarding [Assembly Bill 221](#).

[Exhibit I](#) is written testimony presented by Cecilia Alvarado, Nevada State Director, Mi Familia Vota, in support of [Assembly Bill 221](#).

[Exhibit J](#) is written testimony dated March 29, 2021, presented by Christine Saunders, Policy Director, Progressive Leadership Alliance of Nevada, in support of [Assembly Bill 221](#).

[Exhibit K](#) is a proposed amendment to [Assembly Bill 221](#), submitted by Don Renner, President and General Manager, Renner Equipment Company, Yerington, Nevada; and Joani Woelfel, President and Chief Executive Officer, Far West Equipment Dealers Association.

[Exhibit L](#) is proposed exemption language for [Assembly Bill 221](#), submitted by Don Renner, President and General Manager, Renner Equipment Company, Yerington, Nevada; and Joani Woelfel, President and Chief Executive Officer, Far West Equipment Dealers Association.

[Exhibit M](#) is a letter dated March 26, 2021, signed by Ann Bartow, Professor of Law, University of New Hampshire Franklin Pierce School of Law, et al., in support of [Assembly Bill 221](#).

[Exhibit N](#) is a letter dated March 25, 2021, signed by Levi Kamolnick, State Director, Environment Nevada, et al., in support of [Assembly Bill 221](#).

[Exhibit O](#) is a letter signed by Will Pregman, Communications Director, Battle Born Progress, in support of [Assembly Bill 221](#).

[Exhibit P](#) is a letter dated March 29, 2021, signed by Eddie Ramos, Private Citizen, Las Vegas, Nevada, submitted by Cecilia Alvarado, Nevada State Director, Mi Familia Vota, in support of [Assembly Bill 221](#).

[Exhibit Q](#) is written testimony dated March 28, 2021, presented by Lisa V. McCabe, Director, State Legislative Affairs, CTIA, in opposition to [Assembly Bill 221](#).

[Exhibit R](#) is a letter signed by Ray Bacon, Executive Director, Nevada Manufacturers Association, in opposition to [Assembly Bill 221](#).

[Exhibit S](#) is a letter dated March 29, 2021, signed by Joani Woelfel, President and Chief Executive Officer, Far West Equipment Dealers Association, et al., in opposition to [Assembly Bill 221](#).

[Exhibit T](#) is written testimony presented by Assemblywoman Selena Torres, Assembly District No. 3, regarding [Assembly Bill 221](#).