TO: STANDING COMMITTEE ON BANKING, COMMERCE, AND THE ECONOMY (BANC)
SENATE OF CANADA
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SUBJECT: PROPOSED AMENDMENTS TO THE COPYRIGHT ACT — BILL C-244 (DIAGNOSIS, MAINTENANCE, REPAIR) AND BILL C-294 (INTEROPERABILITY)

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This brief is submitted in response to the Standing Committee on Banking, Commerce and the Economy's invitation to provide written testimony to help inform its consideration of Bill C-244, *An Act to amend the Copyright Act* (diagnosis, maintenance and repair), and Bill C-294, *An Act to Amend the Copyright Act* (interoperability).

Proposed RID Reforms Align with Legitimate Purview of Copyright Law

Both bills seek to reform the Copyright Act's governance of technological protection measures (TPM's) by providing exemptions to the Act's anti-circumvention provisions for purposes of diagnosis, maintenance, and repair (Bill C-244), and interoperability (Bill C-294). The purpose of copyright law is to benefit the whole of society by promoting the creation and sharing of creative and artistic works. TPMs are a relatively recent addition to the Act and were introduced in response to concerns over the impact of the Internet and digital networked technologies on creative industries. The fear was that these new technologies would enable unfettered infringement online. TPMs were conceived of as a means of creating artificial digital scarcity to insulate authors and content industries against those risks.

We can see now that TPMs overshot their original mark. and have been co-opted to serve interests unrelated to copyright infringement. Manufacturers of things that bear no legitimate conceivable relationships to copyright, i.e. home appliances, assistive technologies, automobiles, agricultural and

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industrial equipment, co-opt TMPs to serve interests unrelated to copyright by simply embedding a bit of code into their products. Manufacturers misuse TPMs:

- to protect their business models,
- to stifle competition in the market for new goods and services,
- to capture downstream repair markets,
- to reduce consumer choice and mobility,
- to reduce innovation that might threaten their incumbency,
- to accelerate sales and turnover,
- to exacerbate the climate crisis through unsustainable profit-driven practices,
- to undermine social trust and goodwill.

These practices have gone unchecked for too long and now result in a web of economic, environmental, and social harms (discussed below). Bill C-244 and Bill C-294 take modest incremental steps to halt and reverse the misuse of TPMs by those operating beyond the purview of copyright, while leaving the provisions intact for contexts that might bear a legitimate relationship to the overarching purposes of the Act.

Proposed RID Reforms Promote Important Interests

The previous section focused on why Bill C-244 and Bill C-294 are necessary to correct harms arising from copyright misuse by manufacturers. This section offers a brief discussion of the way in which these bills promote important economic, environmental, and social interests and values.

Economic Interests – affordability, innovation, mobility

By empowering us to extending the useful life of the things we already have through maintenance and repair, interoperability, and durable design, Bill C-244 & C-294 promote affordability. Fixing what we already have is cheaper than buying a new replacement; we all have the potential to save money when repair is accessible, affordable, and available. Long-lasting, interoperable, reparable products cost less over their life cycle while cheap, throwaway products end up costing more over the longer term. When independent repair technicians and businesses are empowered to perform repair work and innovate interoperable products and services, this supports local economies. These bills help local economies flourish by providing work for skilled technicians and innovators, and by supporting healthy secondary and ancillary markets. More consumer choice not only benefits budget-minded purchasers, but it also puts downward pressure on the market for new goods as overall competition in the marketplace is increased.

Bill C-244 & Bill C-294 are pro-innovation. Through my research, I've interviewed and spoken to farmers, teachers, engineers, artists, community organizers, health care workers, mechanics, volunteer fixers, youth, people living in cities, in suburbs, in rural areas across Canada (and elsewhere). A common thread across these differences is that the practice of figuring out what is wrong with something and fixing it is innovative. Likewise, those who design for interoperability and durability are engaging in important forms of follow-on innovation. Our conception and valuation of innovation has gone astray. We overemphasize novelty, newness, and invention and underemphasize the work, skill, and adaptive situated problem-solving required to keep the things we already have running smoothly. Rather than

undermining innovation as some opponents of these Bills suggest, C-244 and C-294 undoubtedly promote it.

Related to affordability and competition through innovation, C-294 also promotes consumer choice and mobility. Manufacturers use TPMs to lock competitors out. They also use TPMs to lock us into ongoing commercial relationships that we might otherwise wish to end. Restrictions on interoperability have enabled switching costs to rise to untenable levels. We lack the economic agency to leave for an alternative or substitute provider, assuming a viable one even exists. Despite the rhetoric about living in a connected world, the misuse of TPMs to block interoperability reveals that we live in walled gardens, platform bubbles, and tech siloes — disconnected closed-worlds. No matter how nice the trappings, or sticker price, might appear at first, a cage is still a cage. Provider lock-in and lock-out limit consumer choice and enables sellers' unjust enrichment.

Environmental Interests – sustainability, ethical development

Bill C-244 and C-294 temper the environmental impacts of our (over)consumption. Every new device requires resource extraction, polluting and resource-intensive manufacturing processes, distribution (often relying on global supply chains), use, and disposal. Every step in this process takes a toll on our environment. Often, these processes are ecologically violent and harm the people and places where these activities are situated. Our habits of consumption, made worse by manufacturers' misuse of TPMs, are simply not sustainable. Amid a climate crisis, we are all responsible for making environmentally sustainable and ecologically sound choices. Bill C-244 and Bill C-294 are incremental steps toward empowering consumers to make better choices. Giving technicians the tools to circumvent TPMS, such as removing Apple's "activation lock" when refurbishing a device for resale or bypassing parts-pairing restrictions when repairing a device, will keep thousands of otherwise working devices out of the landfill.

Canadians' enjoyment of "low sticker prices" on goods is made possible by manufacturers' obfuscation of the true costs of ownership. In terms of repair and durability, our enjoyment of low-cost, low-quality, throwaway goods relies on systems that externalize the negative consequences of our (over)consumption. In many instances, the trust cost of our consumption is borne out by others, and disproportionately impacts vulnerable and marginalized people and communities in Canada and around the globe. Bill C-244 and Bill C-294 represent a small but meaningful step toward demanding that manufacturers do more to meet sustainable development goals for the benefit of us all.

Social Interests – repair, interoperability, and durability speak to fundamental human desires

Bill C-244 and Bill C-294 are good for us, as people and as communities. Every act of repair is embedded with important human values. These include productivist values like learning, skill development, self-determination, autonomy, and digital citizenship, as well as non-productivist values like care, continuity, heritage, hope, mutual support, and meaning-making that together make up the fabric of a richer, more resilient, more livable society and enable us, collectively, to project a more hospitable, habitable, and humane shared future.

The reforms under consideration deal with technical aspects of a specific subset of technological objects – those that contain TPMs – but our "things" are not the only things that break. Our bodies,

relationships, political and social systems also decay and breakdown. Diagnosis, maintenance, repair, interoperability, and durability are interests that include and extend beyond our devices. When our ability to fix our "things" is impeded, it is not simply inconvenient or costly. Bill C-244 and Bill C-294 resist complacency with breakdown at an instrumental level, but also at an institutional level, and an existential level. We cannot afford to be broken people, with broken things, living in a broken world.

The challenges we currently fact cut across sectors, industries, geographies, political affiliations, class and socioeconomic status, and so on. From a policymaking perspective, Bill C-244 and Bill C-294 are somewhat unique in that they have (overall) a leveling and unifying effect than appeals to many, and for good reason. These Bills reflect a fundamental shared human desire to resist, and even reverse for a time, the ineluctable gravity of breakdown.

Positioning Reforms in Relation to RID Impediments

Bill C-244 and Bill C-294 represent important, incremental steps in the right direction. Repair, interoperability, and durability are impeded by design choices, business strategies, constraints on access to material and informational resources, laws, and various social factors. As you can see, law-based impediments constitute only one of six categories of impediments. And within that category, copyright law represents only one slice of the legal impediments that exist. These bills are critical, but they are not a silver bullet solution.

Impediments to repair, interoperability, and durability might be best understood, from a policy perspective, as "reverse salients". Reverse salients (a term borrowed from military strategy) refers to the parts of a system that underperform the rest and therefore prevent the system from achieve its full potential. Reverse salient can be technological, i.e. insanely fragile smartphone screens, glue-over-screw design choices, parts-authentication and other technological protection measures. They can be business strategies, e.g. incentivizing replacement over repair through price discrimination, capturing the downstream repair market, planned obsolescence. Reverse salients can include restrictions on access to information and material resources, e.g. product schematics and manuals, specialized tools and fasteners. Reverse salient can also include legal restrictions that need to be recalibrated in light of evolving business practices and public interest, e.g. copyright laws employed to prevent farmers from fixing their tractors and families from buying ice cream at McDonald's, contract laws obliterating warranty protections for consumers, competition laws effectively hampering innovation and competition by vesting too much power in incumbents. Reverse salient can also be social, e.g. employing sophisticated marketing strategies to exploit our natural novelty-seeking biases and encourage psychological obsolescence, undermine our technological skill, confidence, and self-efficacy while fostering passive dependence on our technologies, and so forth.

In terms of policymaking, the first step is identifying impediments to repair and understanding how they function as reverse salients. Viewed in this way, as sticking points that protrude backward against forward momentum and progress, repair impediments become productive locales for orienting debates and reforms that might ultimately remove them.

Imperatives of RID policy

A whole-of-government approach is needed to promote repairability, interoperability, and durability. Barriers to RID negatively impact the economic, environmental, and social interests of Canadians and

arise from a melange of economic (dis)incentives, business strategies, laws, resource restrictions, and social-/community-based factors. Promoting RID requires synergistic policy solutions arising from coordinated, complementary efforts across departmental and jurisdictional divides. RID policies must target: 1) legal reforms (Copyright, Competition, Consumer Protection, PPSA); 2) product design (for repairability and environmental sustainability); 3) marketing and sales (information on true cost of ownership, anticipated useful life, ease/cost of repair, warranty claim information); 4) the downstream availability of parts/manuals/services (including 3rd party options); 5) rebate programs/economic incentives; 6) initiatives for education, training, and small businesses.

At the federal level, passage of Bill C-244 and C-294 are critical first steps. The Act's anticircumvention provisions should not enable manufacturers to employ TPMs to prohibit lawful activities unrelated copyright (C-244) or limit consumer choice through lock-out or lock-in (C-294). An initial sale of a product or service ought not give companies unfettered downstream control over how those products or services are used. In addition, given that copyright law is principally interested in promoting the creation of creative works, the makers of consumer electronics and home appliances (as well as agricultural, medical, and automotive equipment to name a few) should not be permitted to employ the tools of copyright to protect business interests unrelated to the aims of copyright.

Relatedly, the federal governments' recent amendments to the Competition Act have made some promising improvements, most notably regarding the inclusion of a right to repair provision that ensures that diagnostic and repair services will be more widely available to Canadian consumers and easing the burden for Canadians to bring refusal to deal claims before the tribunal. While these are important improvements, they are incremental. In is unreasonable for private individuals to take on the job of protecting the public against anticompetitive practices, particularly as the decisions of the tribunal may not be binding on other similarly situated members of the public. We can look toward the recent actions of the FTC in the U.S. for guidance on how a public agency can reengage with their mandate in the interests of consumers. Additional reforms to the Competition Act are needed that would restrict unfair competition through interoperability restrictions and tying practices.

At the provincial level, Quebec's Bill-29 is an exemplar in its establishment of standards around repair, maintenance, durability, and planned obsolescence. Returning to the importance of a whole-of-government approach, provincial jurisdiction over contracts and consumer protection, it is important for the federal government to signal to other provinces considering similar legislation that the path is clear. For example, Ontario and PEI have or have had right to repair-related bills brought forward with, so far, no success. My hope is that Quebec's success will be replicated elsewhere.

There are additional opportunities straddling federal and provincial jurisdiction to create economic policies and programs to effectively recalibrate incentives between profit-seeking industry and consumer rights and protection. The Personal Property Security Act, for example, gives the federal government some power to potentially harmonize commercial transactions between the provinces and territories. It could be used, for example, to establish and/or clarify rules around warrantees and guarantees to establish a basic standard "good working order" guarantee and ensure that companies cannot void a warranty because of diagnosis, maintenance, and repair activities undertaken by consumers or the third-party repair technicians they choose.

We can also look to economic incentive programs initiated elsewhere for models. For example, some EU member states have instituted a "repairability index" (which gives consumers some additional

information on the repairability of consumer goods at the point of sale), a “warranty claim disclosure” (which enables consumers to see information on warranty claims for particular products including the number and type of claims filed and at what stage of the products’ lifecycle the claims were made), and various “repair rebate” programs (where repair costs are tax-free and/or qualify for rebates). One of the challenges, in my perspective, of the repair rebate approaches enacted elsewhere is that the OEM retains authority and oversight over repair (i.e. providing the government with a list of “approved” or “authorized” repair service providers) which undermines the need to provide third-party alternatives.

In addition, the whole-of-government approach ought to provide economic support and incentives for the development of community initiatives at the municipal and regional levels including grants and supports for repair cafes, tool libraries, supports for attracting and training skilled tradespeople, and grants for small/independent repair businesses.

In its federal budget, the government has acknowledged that Canadians are struggling with an affordability crisis. Strong right to repair protections positively impact local economies in several key ways. First, being able to fix what we already have is cheaper than buying something new; we all have the potential to save money when repair is accessible, affordable, and available. Second, since most repairs are done locally, right to repair helps local economies flourish by providing work for skilled repair technicians. Finally, repairability also helps secondary markets flourish; this not only beneficial to budget-minded consumers but also puts downward pressure on the market for new goods as overall competition in the marketplace is increased.

The government should implement comprehensive legislation that mandates RID by design. It should address misuse of intellectual property rights, revise competition laws, bolster consumer protection law, establish basic warranties and guarantees, and incentivize RID product design. It should mandate access to repair manuals, tools, diagnostic info, and spare parts for all sectors. It should create programs, policies, and initiatives that empower consumers, businesses, and institutions to increase efficiency and reduce waste through RID. It should set durability and repairability standards, starting with consumer electronics and home appliances, that ensure the design of products allow for easy replacement of key components without specialized tools, and create a transparent system of reporting warranty claims and information to guide consumer choice. Reparability scores and repair rebate programs should be initiated. Product labels should inform consumers at the point of sale about product RID to empower them about the true cost ownership. It should promote open standard to reduce proprietary design and foster a sustainable approach to technology. The Competition Bureau should be empowered to investigate and enforce interoperability standards and expectations. Consumers should have access to an effective grievance and reporting system, or have standing to bring claims in violation of RID. It should support public campaigns to inform consumers about the benefits and importance of RID. Support for small businesses and grassroots community initiatives should be made available through funding, tax incentives, training, and certification programs. It should support research and innovation in promotion of RID including investments in sustainable product design, modularity, and repairable materials. These measures are critical to ensuring Canada’s leadership in global technology citizenship and its leadership in sustainable tech and design.

More specifically, RID policy imperatives should include:

- Repair-by-design: product durability should be promoted, reparability should be designed into products (removable fasteners, replaceable components, ease of repair), cars have hoods and spare tires – other products should have the equivalent;
- Information and material resources necessary to diagnose, maintain and repair goods should be available, accessible, and affordable for consumers and third-parties;
- Copyright laws should clarify that TPMs may not be employed to restrict lawful activities that bear no relationship to legitimate copyright interests; an exemption should be made for the circumvention of TPMs for diagnosis, maintenance and repair by consumers and third parties and that making and trafficking in circumvention tools for purposes of enabling diagnosis, maintenance and repair is permissible under the act;
- Competition laws should be strengthened and invoked to prevent anti-competitive practices such as parts-pairing, parts-authentication, downstream repair market capture, and blocking interoperability;
- Contracts and consumer protection laws should strengthen warranties and other agreements to ensure that customers enjoy adequate coverage, e.g. availability of replacement parts, service, and updates for seven years, warranty of good working order;
- Consumers should be better informed at the point of purchase about the true cost of ownership, e.g. repair scores should be affixed to product packaging, information on warranty claims should be made transparently available to consumers including which parts are prone to break, average time to claim, cost of fixing, and so forth;
- Funding should be made available to incentivize repair by, for example, instituting rebates for repair;
- Funding should be made available to study and resolve the impediments to repair in particular critical industries including health care, agriculture, and defense;
- Funding should be made available to community repair initiatives such as repair cafes in public libraries, applied learning initiatives in K-12 schools, fix-it workshops in used goods stores like Goodwill and the Salvation Army, and other community spaces.

Conclusion

Repair, interoperability, and durability are critical to economic well-being, environmental health, and human-social flourishing. For the health of our economy, our planet, our communities, and ourselves, Bill C-244 and Bill C-294 should receive support in the Senate and royal assent. It is imperative that we take all necessary steps to extend the useful life of the things we have, and find ways to fix our things, our selves, and our world. Passing Bill C-244 and Bill C-294 are important, incremental steps in the right direction.

I appreciate the Committee's attention and efforts with regard to these issues and am happy to provide further information or clarification.