

The Stunted Public Interest Vocabulary in the Broadcast Spectrum Auction

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Looking Back to Look Forward: The Next Ten Years of Spectrum Policy

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I have a law student who recently told me that she was looking to work in the policy area. She wants to help people, give voice to the voiceless she said. It was clear from her questions that she didn't think communications policymaking afforded this kind of opportunity. It just wasn't about justice in that way. Of course, I pushed back on that notion. There is a long history of public interest advocacy in communications policy. The Communications Act expresses as central policy goals that everyone have access to the tools of communication, that control over communications infrastructure be widely distributed, that there be competition and innovation in communications services, that there be content of public interest and import, and that communications systems serve as vehicles for democratic participation and justice.

All of this "public interest" richness lies within communications policy. But there has been a contraction in the public interest imagination. Sure, there are still public interest battles being fought in broadcast regulation, but we are moving to a post-broadcast world. Nowhere is this more evident than in the transition of spectrum from broadcasting to commercial wireless broadband. This movement of spectrum appropriately responds to shifts in demand from broadcast to mobile. Given their very different network characteristics, mobile and broadcasting require very different policies, and no one could sensibly argue that broadcast regulation would be appropriate for wireless infrastructure. At the same time, however, the public interests in widely distributed communicative capacity endure – interests that the market does not always support.

Policy discourse around spectrum auctions fails to grapple with the full array of public interests. The attempts to address these concerns in broadcasting fall by the wayside in the spectrum migration to wireless. If we distill the public interest agenda into a concern for distributed access to communicative capacity, it finds a single expression in the broadcast auction debate: the push for unlicensed spectrum. Unlicensed spectrum promises broadband opportunities in underserved areas, free broadband, broadband uncontrolled by the major commercial carriers, space for what the net heads call "innovation without permission," and other good things. Unlicensed spectrum can potentially satisfy many public interest aspirations. But the unlicensed spectrum discussion has been far too dry and insular to ignite public passions. Without them, it is impossible to build the coalitions that are needed to move communications policy from the paths of least resistance.

The Great Spectrum Migration from Broadcasting

This impoverishment of the public interest discourse is evident in the proceeding that begins to implement the spectrum migration from broadcasting. The FCC has recently asked for public comment on an extraordinary proposal. It is the plan to conduct "forward" and "reverse" auctions in the

broadcast television spectrum band. These auctions will identify broadcasters who will sell some or all of their spectrum at the lowest price and wireless providers willing to pay for the bandwidth. It's been a long time coming – this re-commissioning of broadcast spectrum to wireless. At least since the mid-1990s, it was clear that digital broadcasting would allow broadcasters to function with less spectrum, and that market changes would allow America to do with less broadcasting.

The creativity of the FCC's implementation proposal astounds. It includes new ways of organizing spectrum blocks (into what it calls band plan "families" and "extended families"), new kinds of flexibility for bidders, new spectrum products (including interference rights), and of course the innovation of clearing spectrum by letting willing sellers participate in the auction revenues. The FCC has announced as its goal the reallocation of 120 MHz in the 600 MHz band some time in 2014. After that, the remaining (presumably fewer) broadcasters would be "repacked" into a smaller band.

As striking as what the FCC proposes is what's missing: a robust and varied conception of the public interest. The phrase "public interest" is nowhere to be found in the 200-page proposal. That's not to say that public interest goals are entirely absent. The FCC says that it wants "to unleash investment and innovation, benefit consumers, drive economic growth, and enhance our global competitiveness" while preserving broadcast television (NPRM, ¶10). These "economic growth" goals are great... who could oppose them? But they do not suffice, certainly not with respect to this spectrum.

First of all, it's a lot of spectrum. It's much more than the FCC has ever sought to auction and, most importantly, it's prime low-band spectrum. It may be someday that wireless systems are spectrum agnostic. We are not there yet and this "beachfront" spectrum still has more utility for the most popular applications than any other spectrum band. The broadcast band auction, if it proceeds as hoped, will make available more than twice as much spectrum as the FCC auctioned in 2008 in the neighboring 700 MHz band for nearly \$20 billion. As many have observed, this is a unique opportunity to allocate rights to this kind of spectrum resource.

Second, this is spectrum that has borne a special public interest load. It has been governed, more or less effectively, according to a social compact. Broadcasters got valuable licenses to provide a commercial service. In return, their spectrum rights were burdened by various service obligations thought to benefit the public. These benefits could not be described as principally economic, although communications access and service is always touted as a condition of economic prosperity. No, the principal argument for market interventions in broadcasting was that market transactions would not produce all the public good that we needed from a critical and scarce communications resource.

Public interest policies in broadcasting were expressed not only in service requirements, but in the very architecture of the broadcast band. Broadcast spectrum was zoned so as to reserve some spectrum "parkland" for noncommercial operators who provided different kinds of service to the public. Channels were allocated so as to distribute control over infrastructure both geographically and demographically. Structural regulations --- including media concentration limits, foreign ownership rules, diversity requirements, local control rules, noncommercial broadcasting rules – were all designed to effectuate the goals as the architecture of broadcasting itself. The central goal was to distribute communicative

power widely. Broadcast towers would be a staple of civic life, alongside libraries and city halls. One need only look at the broadcast table of allocations to see that this kind of distribution was not efficient in terms of spectrum use. It was not technically required. It was done out of a political commitment to decentralized control and local autonomy.¹

The reverse auction in effect allows broadcasters to “cash out” of the social compact. We can put aside the question of whether broadcasters who participate in the auction gain an unfair windfall. The equities are complicated and, in any case, the outcome politically required. We can also put to rest the question of whether broadcast policies should be pursued in new allocations. They should not. Instead, the question is whether the social compact that has existed with respect to public airwaves needs new form. Is there a “conservation of public interest value” as the broadcast spectrum migrates to wireless use? And has sufficient attention been paid to public interests in free service and widely distributed infrastructure? The auction model reduces the public interest in spectrum to mere economic efficiency. Spectrum efficiency gains are a public interest, to be sure. Indeed, a broad conception of efficiency could encompass many public interest goals. We might say, for example, that spectrum is most efficiently used when it enables the most people to communicate the most. The narrower understanding of efficiency means that when we reclassify the broadcast “public airwaves” as mere “spectrum,” we also reclassify public interest pursuits from wide ranging access and service goals to the singular goal of economic growth.

Unlicensed and the Spectrum Act of 2012

This consideration of the public interest – how to define it and how to implement it – was sorely lacking in the run up to the Spectrum Act of 2012. This is the legislation that gave the FCC its marching orders to undertake this complicated auction while at the same time imposing serious constraints on the agency’s flexibility. Congress was dealing with broadcasters who insisted on protections for their service and for nascent mobile broadcasting efforts. The wireless industry wanted to depress the price that broadcasters could command as part of a “reverse” auction, and to maximize the amount of licensed spectrum captured from the band. In addition to these pressures was the government’s fervent desire to squeeze as much revenue as possible from the auctions for deficit reduction.

Public interest concerns crystalized around one question: how much spectrum would be available for unlicensed use after the transition from broadcasting. Public Knowledge and New America Foundation led the charge on unlicensed, fighting to preserve unlicensed access to the white spaces within the “repacked” broadcast spectrum and to obtain new bands for unlicensed use in the re-allocated spectrum. However broadly the public interest might be, and has been, conceived in communications policy, it was reduced in this case to unlicensed spectrum. That case, moreover, was reduced to almost

¹ The Communications Act instructs the FCC to ensure a wide distribution of radio-based service. *NAB v. FCC*, 740 F.2d 1190, 1198 (D.C. Cir. 1984) (“[T]he FCC’s paramount responsibility is to achieve a ‘fair, efficient and equitable distribution of radio service ... so as to make available, as far as possible, to all the people of the United States, a rapid, efficient, nation-wide, and world-wide wire and communications service.’”), quoting 47 U.S.C. § 151(c).

purely economic terms: unlicensed spectrum usage expands opportunities for innovation and consumer surplus.

Unlicensed advocates argued that unlicensed uses should be considered co-equal to licensed uses, rather than relegated to the margins of what the commercial carriers purchased. This argument found support in the FCC's 2010 Broadband Plan, which recommended that the FCC "make a sufficient portion [of spectrum] available for use exclusively or predominantly by unlicensed devices."² The Public Interest Spectrum Coalition, led by Public Knowledge, argued that "super-WiFi," of the kind that an allocation for unlicensed uses might support, would foster innovation and economic growth.³ It also made the structural argument that the commercial wireless model of large capital investments in a hub and spoke cellular network architecture would not satisfy the demands of an "Internet of things" and other emerging spectrum uses. In other words, economic prosperity requires what Public Knowledge's Harold Feld has called a "mobile ecosystem" of diverse licensed and unlicensed architectures.

The public interest community made its case for unlicensed spectrum in the same terms that dominate spectrum management debates. This is a discourse focused almost exclusively on auction revenue and economic productivity. Framed in these terms, the disagreements become about how to balance current revenue with deferred value and how to measure different forms of economic productivity. Public interest advocates stressed the economic productivity of distributed unlicensed networks like WiFi. Feld referred to a 2009 study of home networking by USC economist Ergin Bayrak that estimated the consumer welfare contributions of WiFi at \$18 billion. Harvard Law School's Berkman Center issued a report stressing how heavily dependent were commercial wireless providers and other commercial spectrum users on unlicensed technology.⁴ It went on to advocate "unlicensed strategies to develop new generations of innovation."

This strategy hit its mark. Public interest advocates, along with their commercial allies, were able to convince a bipartisan group of House Representatives of the value of unlicensed spectrum. In a letter, these lawmakers urged their colleagues to allow unlicensed operation in the reallocated broadcast spectrum. They claimed that unlicensed devices contributed \$16-37 billion to the economy and that unlicensed spectrum would "unlock billions of dollars in private investment, new innovations, job creation, and economic growth."⁵ The strategy hit its mark, but the mark was relatively small. As the legislative process progressed, a public interest "win" came to be defined as preserving authority for the

² The National Broadband Plan, Section 5.6, <http://www.broadband.gov/plan/5-spectrum/#s5-6>.

³ Testimony of Harold Feld, Legal Director of Public Knowledge On behalf of the Public Interest Spectrum Coalition Before the U.S. House of Representatives Committee on Energy and Commerce Subcommittee on Communications and Technology, Hearing on Promoting broadband, Jobs and Economic Growth through Commercial Spectrum Auctions, June 1, 2011. <http://www.publicknowledge.org/written-testimony-behalf-pisc-us-house-representat>.

⁴ Yochai Benkler, Open Wireless v. Licensed Spectrum: Evidence from Market Adoption, Nov. 7, 2011 (Berkman Center Report) ("Eighty percent of wireless healthcare; seventy percent of smart grid communications; and forty to ninety percent of mobile broadband data to smartphones and tablets use unlicensed strategies.") http://cyber.law.harvard.edu/publications/2011/unlicensed_wireless_v_licensed_spectrum.

⁵ Letter of Reps. Eshoo and Issa, et al, to Chairman Camp and Chairman Baucus, Feb. 9, 2012, http://eshoo.house.gov/images/stories/Final_Letter_to_Conferesee_Supporting_Unlicensed_Spectrum_02-

FCC to allow unlicensed operations *at all* in newly allocated spectrum. Public interest advocates succeeded in fighting back a provision in the House bill that would have essentially outlawed unlicensed in recaptured broadcast spectrum.⁶ A new allocation for unlicensed in the old broadcast spectrum was off the table.

In the end, the FCC proposes to allow unlicensed operation only at the margins of the vast new territory opened up for wireless broadband. The Spectrum Act of 2012 requires the FCC to auction as much spectrum as possible for licensed uses, while protecting the remaining broadcast service from interference. What is left for unlicensed is to be scrounged out of the “guard bands” that the FCC will designate as buffer channels between licensed spectrum blocks. Knowing exactly what it was doing, Congress instructed the FCC to make these bands as narrow as possible to serve their designated purpose of protecting new licensees (and existing broadcasters) from interference. In other words, The FCC may admit new unlicensed use, but only at the fringes of licensed channels and only as dictated by other requirements (guard band needs).

Neglected Public Interest Values

There was another big legislative story in 2012 regarding digital networks. It was the SOPA/PIPA firestorm when grassroots and “netroots” activists quickly shut down legislative attempts to give copyright holders greater power to control network traffic. What had been a relatively esoteric copyright issue came to be understood in terms of free speech and access. The same phenomenon has happened before in communications policy, for example around media ownership questions. Relatively technical questions about control over communications systems are translated into stories that tell themselves and speak to public sensibilities. Unlicensed spectrum has not fired the passions of the public in this way, despite its contributions to consumer welfare.

There has not gathered around unlicensed spectrum the broad array of social justice and civil rights participants that have engaged in past communications policy battles. One reason for the relative quiet is that spectrum is just too wonky for the mainstream. At least as articulated thus far, the discourse around spectrum allocations is too technical and too divorced from questions of participation, access, diversity, freedom, and control. Another reason has to do with convergence. It used to be that distinct services (telephone, cable, broadcast) raised distinct public interests. Interests in affordability, access, privacy, or diversity of expression pooled around single-purpose services, and the groups working on these issues focused on one or another communications policy. If the concern was content, for example, the focus was broadcasting. If the concern was price, the focus was cable or telco. Of course, the wireless services that spectrum supports are all-purpose. Virtually any one can implicate any of the traditional public interest concerns, and the assignment of spectrum resources implicates them all. The public interest debate has not yet caught up to the new realities.

⁶ It would have done this by requiring the FCC to auction off allocation decisions, meaning that unlicensed users would have to outbid licensed users before the FCC could make an unlicensed allocation. Given the nature of unlicensed use, this would never happen.

Because engagement around the public interest in spectrum is thin, the FCC auction proposal frames the issues narrowly. They are essentially confined to the question of how much spectrum is allocated or otherwise made available for unlicensed use. How big will the guard bands be for unlicensed operation? What interference protections will be required? It will not be apparent to the larger world of public interest advocates that unlicensed spectrum is, among so many other things, doing the work of the “reserve spectrum” that early media justice advocates fought for in the broadcast band. It’s the space where entry is easy and cheap, where experimentation can happen, where capital demands are reduced, and where access and service goals can be fulfilled in ways the market for spectrum licenses does not support.

What would a more robust public interest discourse look like? For starters, it would ask more far-ranging questions. Will and should there be free, universally available wireless connectivity and service in place of the broadcast service that is shrinking? If so, is unlicensed the best mechanism to achieve that? Is any equipment or interoperability regulation necessary to further that goal? What of the likely loss of noncommercial broadcast spectrum? Should the “liquidated value” of that spectrum be returned in some way to the noncommercial media mission and noncommercial communications infrastructure? What of open Internet and access issues? What of local control over wireless capacity and municipal broadband? What is the relation between these questions and channelization plans and auction design?

The first step in dealing with these questions is to recognize that there are public interest costs and benefits in the migration from broadcasting to wireless. Broadcasting is free to the consumer, universally available, locally rooted, and regulated in the public interest. For better and for worse, and to varying degrees over time, broadcasting has involved a trade of spectrum assets in return for public service benefits. Some of these are service-related (noncommercial service, educational programming, diverse and local service). Some of these are infrastructural (broadcasting capacity in every locale, universal coverage). With the loss of broadcasting, and broadcasting spectrum assets, comes a loss of certain kinds of service and we need to keep asking whether the new benefits are commensurate.

Second, the unlicensed spectrum debate needs to be framed in more human terms. Allocating spectrum for unlicensed access is not just about innovation and economic growth, as important as those values are. It is also about providing control over communications capacity to more than a few wireless carriers. It is about democracy and justice and freedom of speech. It is about rural service and access and the wide distribution of communications infrastructure. When I consulted on the FCC’s massive 2011 Report on the Information Needs of Communities, I asked unlicensed advocates to document the specific ways in which unlicensed networks support democratic values. The question was how, beyond providing free hotspots and home networking, unlicensed technologies had specially enabled information and journalism flows important to life in a democracy. There was a story to be told there, especially in rural and underserved areas.

These are values expressed in broadcast policy and served by unlicensed spectrum. The connection between the two should be explicit. Moreover, the FCC ought to ask with respect to its auction policies whether there is a “conservation of public value” as the spectrum migrates to new uses. If the value proposition for unlicensed spectrum were more robustly stated and more broadly endorsed, the

Spectrum Act might read differently and, in any case, it might be easier to press the limits that law imposed on the FCC to make maximal spectrum available for unlicensed.

Third, unlicensed spectrum shouldn't bear the full brunt of public interest values. It may be too late to expand the purview of the current broadcast auction proceeding, so these comments should be understood more broadly. In the 700 MHz auction in 2008, the FCC did not allocate spectrum for unlicensed use. But it did condition some of the commercial wireless licenses on compliance with net neutrality or open network principles.⁷ Verizon Wireless won these licenses and it made a difference in how it operated its network. Since then, in 2010, the FCC adopted open Internet principles, but their legality is under question at the D.C. Circuit as is their potency with respect to mobile networks in any case. We may be looking at a situation, at least until statutory reform, where the only open network provisions that can be enforced are in the context of a licensing condition. The FCC did enforce this condition against Verizon in July 2012.⁸ A robust open network principle as a license condition would be something to consider. Again, the merits of such a proposal should be viewed in light of longstanding public interest values of access, service, and distributed communicative capacity.

Other policy choices the FCC is considering in the broadcast auction implicate public interest values. These include interoperability requirements and "use it or lose it" requirements to force licensee network build out. There are strong economic efficiency arguments to be made for a licensing regime that squeezes maximal productivity from spectrum. There are also expressive freedom arguments.

Until we wring some of the wonkiness out of spectrum policy, we won't be able to engage important constituencies in decisions about wireless architecture. Bright students seeking to do justice are unlikely to see communications policy as a place to play if the public interest is limited to efficiency and economic productivity. There is a more expansive set of interests that needs plain articulation and broader socialization.

⁷ Specifically, licensees offering service on C Block spectrum "shall not deny, limit, or restrict the ability of their customers to use the devices and applications of their choice on the licensee's C Block network," subject to narrow exceptions.

⁸ FCC News Release, *Verizon Wireless To Pay \$1.25 Million to Settle Investigation Into Blocking of Consumers' Access to Certain Mobile Broadband Applications (July 31, 2012)* <http://www.fcc.gov/document/verizon-wireless-pay-125-million-settle-investigation> (enforcing license conditions against Verizon Wireless, which had tried to prevent customers from using tethering applications).