
**POPULIST PLACEMAKING: GROUNDS FOR
OPEN GOVERNMENT-CITIZEN SPATIAL
REGULATING DISCOURSE**

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I. INTRODUCTION

Whether I reasoned rightly or wrongly, my prediction proved wrong. Reason, you see, is a wonderful and necessary tool, but also one of limited power. My reason could not reveal to me the preferences of millions of other people My reason could not reveal to me the details of an open-ended future in which people are free to spend their money—as consumers, as producers, and as investors—as they wish.¹

Lee Anne Fennell in 2013 asked, in her penetrating essay *Crowdsourcing Land Use*,² whether the future of land use control resides in a community's citizenry, thereby recasting local government's role in land use coordination to designing and implementing platforms for public inputs while

¹ Don Boudreaux, *Market Tested Innovation*, CAFE HAYEK (Mar. 5, 2015), <http://cafehayek.com/2015/03/market-tested-innovation.html>.

² Lee Anne Fennell, *Crowdsourcing Land Use*, 78 BROOK. L. REV. 385, 385 (2013).

collecting their feedback and implementing their preferences.³ The response clearly is “no”—also “yes,” naturally. Absent constitutional reforms, local government cannot cede entirely its police power to individuals or groups;⁴ nor would it want to. As Fennell observes, governments must guard and administer society’s normative commitments, which inherently requires an institution to constrain certain preferences among those of “the public mind.”⁵ Specific to information-gathering, governments in the public interest must manage data-gathering applications and algorithms to ensure the lowest occurrence of “systematic biases” that skew the information retrieval derived from plumbing

³ See *id.* at 388, 414–15. Crowdsourcing in land use policy development, in terms of its opportunities and constraints, is detailed further in Daren C. Brabham, *Crowdsourcing the Public Participation Process for Planning Projects*, 8 *PLAN. THEORY* 242, 250–57 (2009).

⁴ See Michael N. Widener, *Shared Spatial Regulating in Sharing-Economy Districts*, 46 *SETON HALL L. REV.* 111, 144–45 (2015) [hereinafter *Shared Spatial Regulating*] (citing U.S. Supreme Court cases).

⁵ See Fennell, *supra* note 2, at 387–88. Mob rule seeks to permeate every level of land use governance, informed judgments be damned. Zoning adjustment (variances and use permits) is rife with illustrations of massive opposition to applications for relief featuring widespread anxiety rooted in ignorance of salient facts. Witness opposition to Phoenix residences used as the shipping address for Internet firearms sales, which federal law mandates requires a physical street address, and, under the City of Phoenix Zoning Ordinance, an issued use permit. These firearms sales’ permit applicants are severely restricted in their onsite activities by ATF (federal) regulations; yet neighborhood opponents, reading hearing notice-posted signs on the applicant’s property (narrating the proposed use in a dozen words or fewer), typically inquire no further prior to attending the public hearing, preferring to assume (and assert at the hearing) that weapons shortly will be test-fired in the applicant’s back yard, while unfamiliar youth storm arsenals cached throughout the home, intending to steal thousands of rounds of ammunition. None of those imagined episodes will happen, since few weapons and little ammunition are stored indoors for long, because the merchant’s sales occur entirely via the Internet. (You cannot test-fire a weapon via the Internet—well, not yet, anyway.) Imagined dangers are magnified when social media becomes engaged. See, e.g., Corinne May-Chahal & Adam Fish, *How the Wisdom of the Crowd Can Turn into Social Media Mob Rule*, *THE CONVERSATION* (June 22, 2015, 1:13 AM), <http://theconversation.com/how-the-wisdom-of-the-crowd-can-turn-into-social-media-mob-rule-43376>. Critics like Andrew Keen go so far as to hold that the Internet spawns “an unregulated network society [that] is breaking the old center, compounding economic and cultural inequality” and “is empowering the rule of the mob.” See ANDREW KEEN, *THE INTERNET IS NOT THE ANSWER* i–ii (2015). If the manner of determining a proposed use’s suitability were no more elaborate than a simple plebiscite, home firearms’ sales use permits, like most other home occupations, likely never would be approved. This is the root of frustration with process on the part of New Urbanists like Andres Duany, who advocates eliminating the “public review process” in favor of a “citizens’ jury” comprised of stakeholders by virtue of community residency alone. See Owen Courreges, *Easier Growth is the Real Smart Growth*, *UPTOWN MESSENGER* (Nov. 25, 2013, 11:39 AM), <http://uptownmessenger.com/2013/11/owen-courreges-easier-growth-is-the-real-smart-growth/>. Heaven forbid!

this public mind.⁶ This paper offers some methods by which to limit the impact of these biases.

Professor Fennell's question elicits an inevitable response—the authentic regulator's choice to decide whether citizens will partner in the land use enterprise occupies either the vanguard or the rear guard of what inexorably will develop in every American urban community. Ignoring the entire realm of municipal competitiveness⁷ concerns and ICT/broadband infrastructure implications of such status that seemingly obsess cities, towns, some rural areas, and government partnership with citizens has two independent sources. First, Digital Natives have the ingrained habit of sharing information of every type, however trivial or unseemly that behavior may seem.⁸ This trait is sufficiently second nature that Americans must concede that successive generations of young adults will expect, then demand, their governing bodies communicate detailed information bearing on land use decision-making. Second, as local governments make increasingly large bets on New Urbanist principles like densification and prescribed placemaking,⁹ the risk of disregarding citizen land use preferences¹⁰ is costlier in dollars consumed and political careers jeopardized. Placemaking is a theoretical centerpiece of New Urbanism; and its success depends, ultimately, upon public acceptance of community “places made.” Planners today theoretically are committed to

⁶ See Fennell, *supra* note 2, at 394.

⁷ See generally, e.g., John I. Carruthers, *Land Use Regulation and Regional Form: a Spatial Mismatch*, in NETWORKS, SPACE AND COMPETITIVENESS: EVOLVING CHALLENGES FOR SUSTAINABLE GROWTH 181–206 (Roberta Capello & Tomaz Ponce Dentinho, eds., 2012); CITY MATTERS: COMPETITIVENESS, COHESION AND URBAN GOVERNANCE (Martin Boddy & Michael Parkinson, eds., 2014); PETER KARL KRESL & DANIELE IETRI, URBAN COMPETITIVENESS: THEORY AND PRACTICE 30–33 (Susan M. Christopherson et al. eds., 2015); Michael N. Widener, *Animating Performance Zoning at Sustainability's Competitive Edge*, 29 GEO. ENVTL. L. REV. 647, 671–76 (2017) [hereinafter *Animating Performance Zoning*].

⁸ See JOHN PALFREY & URS GASSER, BORN DIGITAL: UNDERSTANDING THE FIRST GENERATION OF DIGITAL NATIVES 25–6, 41–3, 54–5, 132–34 (2008).

⁹ New Urbanism is a self-appointed urban planning movement; its central thesis is promoting restoring and creating “diverse, walkable, compact, vibrant, mixed-use communities composed of the same components as conventional development, but assembled in a more integrated fashion, in the form of complete communities. These contain housing, work places, shops, entertainment, schools, parks, and civic facilities essential to the daily lives of the residents” NEW URBANISM, <http://newurbanism.org/> (last visited Nov. 9, 2018). This website informs readers that as many as 4,000 New Urbanist projects are planned or under construction in the United States alone. See *id.* According to the website's composers, it launched in 1998, and has “since grown to become a leading and well respected informational website promoting walkable urbanism, transit-oriented development, trains and sustainability.” *Id.*

¹⁰ NELSON M. ROSENBAUM, CITIZEN INVOLVEMENT IN LAND USE GOVERNANCE: ISSUES AND METHODS 1–2, 10–11 (1976).

creating New Urbanist-correct, central urban hubs of human activity, call them “piazzas” if you like, infused with amusement, variety and street “energy.” Often, these piazzas are touted as being walkable environments inviting participation from the neighborhood and optimizing random encounters.

The authenticity of open space’s quality remains in question; considerable evidence exists that New-Urbanist enclaves privatize former publicly-accessible space.¹¹ Consider, for example, the proliferation of sidewalk retail displays and cafes’ curbside seating formerly restricted to pedestrian movement out of the vehicular rights of way. Here lies Edward M. Morgan’s so-called “privatization of the formerly public realm and dressed-up publicization” of private property increasingly becoming the territories of limited numbers of community residents and consumers, transforming (in the urban core) an authentic cityscape into an “entertainment district” marketed chiefly to “tourists and the wealthiest of residents, who live in a quasi-theme park.”¹² Should piazzas evoke a visceral response more profound than a Pavlovian craving to “consume,” or to snap a photo as “proof of presence?”

The disconnect between persons planning public space for physical occupancy and reflection, and those current and forthcoming occupiers of that physical space, poses this inquiry: What if towns get it wrong, despite applying the experience and reason of their experts?¹³ Suppose digital “Natives” will not include placemaking’s results through sustained engagement, exposing these places merely as trendy statements of high-maintenance consumer niches instead of as iconic community features — the new Times Square, but no one’s there?¹⁴ What if succeeding generations of citizens reject what these contrived

¹¹ Karen Falconer Al-Hindi & Cademon Staddon, *The Hidden Histories and Geographies of Neotraditional Town Planning: The Case of Seaside, Florida*, 15 ENV’T & PLAN. D: SOC’Y & SPACE 349, 365–67 (1997), https://www.researchgate.net/publication/248881527_The_hidden_histories_and_geographies_of_neotraditional_town_planning_The_case_of_Seaside_Florida; Ed Morgan, *The Sword in the Zone: Fantasies of Land-Use Planning Law*, 62 U. TORONTO L. J. 163, 185 (2012).

¹² See Morgan, *supra* note 11, at 185; MATT GOTTDIENER, *THE THEMING OF AMERICA: DREAMS, VISIONS AND COMMERCIAL SPACES* 139–42 (1997).

¹³ See Judith Innes de Neufville, *Disentangling the Debate*, in *THE LAND USE POLICY DEBATE IN THE UNITED STATES* 245 (Judith I. de Neufville ed., 1981) (summarizing co-author arguments suggesting the local government’s calculations are more likely to be incorrect than those of the marketplace; further, that bureaucracy is clumsy and expensive when facing decisions about allocation of resources).

¹⁴ Times Square, while closed to traffic, succeeds as a paragon of walkability and street activation only to tourist gawkers, unless you define “street activation” as a mess comprised of performance artists, panhandlers and hustlers. See Michael Kimmelman, *Challenging Mayor de Blasio Over Times Square Plazas*, N.Y. TIMES (Aug. 21, 2015), <https://centercityphila.org/uploads/attachments/cit0g62y7002if6qd0fnk4mtv-nyt-timessq-panhandling.pdf>; see also Wade Graham, *Why We Hate Pershing Square*, L.A. TIMES (Sept. 27, 2015, 5:00 A.M.), <http://www.latimes.com/opinion/op-ed/la-oe-graham-why-we-hate-pershing->

“places” offer?¹⁵ We understand that informal physical communing with others, a source of weak ties,¹⁶ still affords a marginal sense of belonging, even for those sporadically engaged.¹⁷ Youth encountering a piazza once, never to return, gain little—and their communities prosper still less.

This paper describes how succeeding generations of urbanites (especially contemporary digital natives, whom I call “Natives” throughout) will advance unique views of society driving their absorption of physical place. I argue that local governments need to induce Natives’ participation as citizen-technologists,¹⁸ and that towns must incorporate crowd-sourcing into their planning strategies today, to build community ownership of placemaking endeavors. A substantial consequence of seeking out and weaving youthful inputs, particularly, into placemaking is reversing alienation’s momentum.¹⁹ Properly conducted, this planning approach promotes a sense of ownership,

square-20150927-story.html (parks work when welcoming people, be they walkers, cyclists or equestrians, to a place scaled for humans instead of car traffic).

¹⁵ Natives, as defined below, face daunting problems such as not having full time positions while having elderly relatives to care for and massive student debt loads. See Josh Mitchell, *School-Loan Reckoning: 7 Million Are in Default*, WALL STREET J. (Aug. 21, 2015, 6:56 PM), <http://www.wsj.com/articles/about-7-million-americans-havent-paid-federal-student-loans-in-at-least-a-year-1440175645> (noting that as of July 2015, 6.9 million Americans with student loans hadn’t sent a payment to the government in at least 360 days). This leads to potential shortages of disposable income and the need to relocate within a community to secure affordable accommodation and proximity to work. These currents lead to challenges in placemaking that require addressing by means other than establishing urban “hubs” anchored, for instance, by high-end retailing and costly restaurants, even conceding that humans enjoy variety and “street energy.” See Morgan, *supra* note 11, at 185 (“entertainment districts”).

¹⁶ See DAVID EASLEY AND JON KLEINBERG, *Strong and Weak Ties*, in NETWORKS, CROWDS, AND MARKETS: REASONING ABOUT A HIGHLY CONNECTED WORLD 53, 64 (2011), available at <http://www.cs.cornell.edu/home/kleinber/networks-book/networks-book-ch03.pdf> (noting that weak ties include on-line connections such as on Facebook and Twitter; in contrast, a strong tie requires continuous investment of time and energy to maintain). Still, participation via civic crowd-funding platforms that offer opportunities to fund or to volunteer (such as Citizeninvestor, ioby and Spacehive) not only activate some social capital but may, with time, forge stronger ties, as it is one form of community organizing. See RODRIGO DAVIES, CIVIC CROWDFUNDING: PARTICIPATORY COMMUNITIES, ENTREPRENEURS AND THE POLITICAL ECONOMY OF PLACE 103, 107, 113–14 (2014).

¹⁷ The imperative is featuring minimally a sense of “neighborhood structure,” a welcoming sense that people, not cars and shops, dominate the place. Cf. JEFF SPECK, WALKABLE CITY: HOW DOWNTOWN CAN SAVE AMERICA, ONE STEP AT A TIME 144, 147 (2012). Short blocks and narrower streets contribute to such a sense. See also text *infra* p. 473–74 (Changing Hands Bookstore).

¹⁸ Their role is a bit different than that of the current group of “citizen scientists,” engaged in pure research endeavors; hence the different name.

¹⁹ See *infra* note 44 and accompanying text; *infra* Part IV.C.

however impermanent, in a physical space, or at least in the current “iteration” of that place.²⁰

Owning placemaking is consequential because public life is vanishing. Restoring place in daily life implicates practicing social connections and incorporating physical, identifiable places into the individual’s consciousness.²¹ Mastering these objectives grows the shared environmental capital of communities, an instrumental resource for civilized society.²² Shared place-based values are essential to well-functioning communities, including in the rise of participatory community planning and development.²³ These communities rely upon individuals bearing histories, values, identities and attachments—few of which thrive absent *place*.²⁴ The paper proceeds as follows: Initially, in Part II, I discuss definitions key to this paper’s claims. In Parts III and IV, I introduce the reader to the “displaced” generation of Millennials seeking community. In Part V, I describe the impact on spatial regulation of technology tools’ mastery residing in an increasingly younger tranche of city dwellers. In Part VI, I discuss the placemaking advantages achieved by citizen engagement by community administrator invitation, deployment of citizens in data-gathering and interpretation, and leveraging their expertise for construction of placemaking scenarios using specific technology tools and applications. This part suggests how, through the planning realm, to address needs of Natives to be informed and to inform. It argues for citizen exploiting of newer platforms, like CGIS and other locative media,²⁵ and 3D-printing to model physical places in an intimate, tactile manner, which in turn

²⁰ See *infra* Part VI.B.

²¹ See DANIEL KEMMIS, *THE GOOD CITY AND THE GOOD LIFE: RENEWING THE SENSE OF COMMUNITY* 16–19 (1995) (“lasting” places in Baltimore anchor public understanding of what it means to be a citizen there).

²² See *id.* By comparison, consider ISIS, that cult seeking to destroy environmental capital in headlong pursuit of anarchy, albeit its leadership’s claim of “cultural cleansing.” See *Inside Raqqa, the Capital of ISIS*, N.Y. TIMES (Oct. 2015) http://www.nytimes.com/interactive/2015/11/21/world/middleeast/inside-raqqa-capital-of-isis.html?_r=0; Andrew Curry, *On ISIS’s Path of Ruin, Many Sites of Global Importance*, NAT’L GEOG. (Mar. 12, 2015, 5:01 PM), <http://news.nationalgeographic.com/2015/03/150312-isis-destruction-looting-ancient-sites-iraq-syria-archaeology/>.

²³ Lynne C. Manzo & Douglas D. Perkins, *Finding Common Ground: The Importance of Place Attachment to Community Participation and Planning*, 20 J. PLAN. LIT. 335, 343 (2006), https://www.researchgate.net/profile/Lynne_Manzo/publication/224817592_Finding_Common_Ground_The_Importance_of_Place_Attachment_to_Community_Participation_and_Planning/links/00b7d52d4652d480af000000.pdf.

²⁴ See *id.* at 344.

²⁵ Locative media refers generally to media technologies involving location relating to creative purposes such as geo-catching, mapping and narratives created while rambling around cities. See Gemma San Cornelio & Elisenda Ardévol, *Practices of Place-making Through Locative Media Artworks*, 36 COMM. 313, 313 (2011).

result in greater Native “ownership” and interactivity with those new “places made.”

In Part VII, I suggest means for reimagining dimensions of the land planning enterprise, beginning with renewal of a city’s comprehensive (general) plan. I further examine a statutory institution, the planning commission, as corporate accumulator of data and spokesperson in the legislative process.

In Part VIII, I invite the reader to consider specific community zoning mechanisms; for example, I consider implementing more aggressively floating zones to advance gathering nodes for Natives, special piazzas that I refer to in this paper as “INNs.” Further, I interpret anew an ownership approach, one allowing tracts forming the community piazza to be titled in a commercial land trust to administer the INN and to allow its periodic repurposing in response to successive generational preferences. Then, I address funding mechanisms for implementing at public expense (both local government and citizen-raising based) new places for the building of social capital and its attending continuity of citizen ownership of communities.

II. WHAT IS PLACEMAKING? AND WHAT IS A PLACE?

[T]he ability of a place to accommodate human activity is inextricably interconnected to how a person acts and behaves within its bounds [I]n order to understand fully the meaning of a place, we must make visible some of those “unseen” *political processes* of spatial production that typically remain hidden.²⁶

The intense focus on place has caused us to miss the opportunity to discuss community, process and the act of making. The importance of *the placemaking process itself* is a key factor that has often been overlooked [T]he most successful placemaking initiatives transcend the “place” to forefront the “making.”

. . . .
The importance of process over product in today’s placemaking is a key point that cannot be overstated—and it is pushing the practice to a broader audience and widening its potential impact.

²⁶ Arijit Sen & Lisa Silverman, *Embodied Placemaking: An Important Category of Critical Analysis*, in *MAKING PLACE: SPACE AND EMBODIMENT IN THE CITY* 1, 3–4 (2014) (emphasis added) (citing Dell Upton, arguing that a place must be deconstructed to reveal its seen, unseen and experiential aspects, with the unseen forces having political, cultural, economic and psychological dimensions).

....
[W]e stress placemaking's empowerment of community through the "making" process. In placemaking the important transformation happens in the minds of participants, not simply in the space itself.

....
Today's placemaking represents a comeback for the community.²⁷

Academics and planners define placemaking (like place) in myriad ways.²⁸ As a function of process, however, placemaking must take a flexible, layered planning approach. Optimally, it is inclusive, creative, and participatory, robustly engaging large numbers of stakeholders for defining values, goals, and opportunities for collaboration.²⁹ This mutual stewardship of place and community produces a virtuous cycle of *placemaking*, where communities and places sequentially transform each other.³⁰ Certain goals inevitably focus on catalyzing an always active, street-level experience (with consistent vitality), creating "public spaces" that, together with other features, reinforce a citizen's decision to live in, or a visitor's choice to visit, the piazza, wherever located.³¹ The key, substantive physical components driving these decisions, according to experts today, are "walkability" and the presence of distinctive, safe, and welcoming active (often "green") places affording ready access to services, ease of movement, casual encounters, and a stimulating and often inviting environment.³² Perhaps paramount for community-building are

²⁷ SUSAN SILVERBERG & KATIE LORAH, MIT DEP'T OF URBAN STUDIES AND PLANNING, *PLACES IN THE MAKING: HOW PLACEMAKING BUILDS PLACES AND COMMUNITIES* 3 (2013) <https://dusp.mit.edu/sites/dusp.mit.edu/files/attachments/project/mit-dusp-places-in-the-making.pdf> (emphasis original).

²⁸ See, e.g., Sen & Silverman, *supra* note 26, at 2–3 ("Place is a slippery concept."). Artists and art critics tend to place in the foreground the importance of public art in placemaking. See Daniel Grant, *Cities See the Arts as a Beautiful Economic Tool*, WALL STREET J. (Apr. 16, 2017, 10:05 PM), <https://www.wsj.com/articles/cities-see-the-arts-as-a-beautiful-economic-tool-1492394701>; *Creative Communities and Arts – Based Placemaking*, PROJECT FOR PUBLIC SPACES (June 12, 2015), <https://www.pps.org/reference/creative-communities-and-arts-based-placemaking/>; GEOTHE-INSTITUT, *THE ROLE OF ARTISTS & THE ARTS IN CREATIVE PLACEMAKING* 9 (2014), http://www.goethe.de/ins/us/was/pro/creative_placemaking/2014_Symposium_Report.pdf.

²⁹ See PLAN-IT HENNEPIN: *CREATIVE PLACEMAKING FOR DOWNTOWN MINNEAPOLIS* 5–6 (Dec. 2012).

³⁰ See SILVERBERG & LORAH, *supra* note 27, at 3.

³¹ See *id.* at 6.

³² See *id.* at 7. In the Victorian era, what was desired by London aristocrats was calm places where "a shared symmetry of vista might promote social harmony." See Andrew Roberts, *Residential Squares, London: A Meander Through Splendor and Squalor*, in *CITY SQUARES:*

places for informal, as well as formal, social engagement—featuring a human-scale connection. But a subliminal need abides for distinctiveness, for particularity in place in contemporary culture, as expressed by Edward Casey:

Perhaps most crucially, the encroachment of an indifferent sameness-of-place on a global scale—to the point when at times you cannot be sure which city you are in, given the overwhelming architectural and commercial uniformity of many cities—makes the human subject long for a diversity of places, that is, difference-of-place, that has been lost in a worldwide monoculture based on Western (and more specifically, American) economic and political paradigms. This is not just a matter of nostalgia. An active desire for the particularity of place—for what is truly “local” or “regional”—is aroused by such increasingly common experiences. Place brings with it the very elements sheared off in the planiformity of site: identity, character, nuance, history.³³

“Place,” however elusive its meaning, requires a working definition for community application and for reader clarity. First, a *place* is somewhere we belong to and from where we derive our identity.³⁴ In urban spaces, a *place*, when inhabited, engages all our senses in its experiences. Successful piazzas support the affinity between humankind and its environment, affording us what Aldo van Eyck identified as “homecoming.”³⁵ Some architects refer to a *place* as a locus of concrete, authentic experience, one where beauty becomes intertwined with our daily lives, enriching our everyday rituals.³⁶ The instrumental nature of places in human existence is demonstrated by those sites that concurrently express our commonality *and* our personal identity while

EIGHTEEN WRITERS ON THE SPIRIT AND SIGNIFICANCE OF SQUARES AROUND THE WORLD 228, 235 (Catie Marron ed., 2016). Notably, recent New Urbanist calls for “spontaneous interactions” typically is programmed from above by professionals, while historic city-building was a bottom-up, messy exercise engaging builders, merchants, townspeople (whether locals or immigrants), civic associations and local governments. BRUCE KATZ & JEREMY NOWAK, *THE NEW LOCALISM: HOW CITIES CAN THRIVE IN THE AGE OF POPULISM* 21 (2017) (describing a “self-organizing market and civic practice”). “Populism” inserted into that messy exercise contrast the desires of everyday citizens for place-identity with elites in control of spatial planning. But I am not here suggesting that “populists” are those seeking to overthrow some corrupt establishment controlling the apparatus of placemaking. Cf. M.S., *What is Populism?*, *THE ECONOMIST* (Dec. 19, 2016), <https://www.economist.com/the-economist-explains/2016/12/19/what-is-populism>.

³³ See EDWARD S. CASEY, *THE FATE OF PLACE: A PHILOSOPHICAL HISTORY* xiii (1998).

³⁴ Robert McCarter, *Foreword* to BRIAN HEALY, *COMMONPLACES: THINKING ABOUT AN AMERICAN ARCHITECTURE* 7 (2008).

³⁵ See *id.* This notion is described in more detail in van Eyck’s work, *The Child, the City and the Artist: An Essay on Architecture*, in ALDO VAN EYCK 51 (2015).

³⁶ See McCarter, *supra* note 34, at 7.

satisfying our deepest yearnings.³⁷ Such venues express why placemaking is instrumental in establishing community quality of life.³⁸

Mark Sagoff observed that a physical landscape becomes a *place* “when it functions as a center of felt value because human needs, cultural and social as well as biological, are satisfied in it.”³⁹ If a landscape *becomes* a place through identification, then is there such a thing as inducing placemaking, in an instantaneous sense—can any actor transform a physical space into an “instant hit?”⁴⁰ If places are environments in which people have invested meaning over time, then each place has its own history—a unique cultural and social identity, shaped through the way it is used, courtesy of those persons who use it.

The function of placemaking is critical to development of citizens; so placemaking must uncover the community’s inherent value and lay bare its potential: integrating a place’s historical identity with its contemporary uses.⁴¹ Then, this discovery encourages diverse peoples to mingle and connect, mutually experiencing urban ownership in addition to “belonging.”⁴² By belonging, urbanists mean learning the informal negotiation of place and community norms to advance shared values and prosperity.⁴³ Thus,

³⁷ See *id.* at 7, 9; see also CASEY, *supra* note 33, at ix (“To be at all— to exist in any way—is to be somewhere, and to be somewhere is to be in some kind of place.”); Nigel Thrift, *Space: The Fundamental Stuff of Human Geography*, in KEY CONCEPTS IN GEOGRAPHY 104 (Nicholas J. Clifford et al. eds., 2009) (“certain places can and do bring us to life in certain ways” that others cannot), https://us.corwin.com/sites/default/files/upm-binaries/9554_019254ch5.pdf. Today, however, the concept of good public places incorporates certain agendas of various placemaking proponents: Connecting the environment to green spaces, extending social inclusion for the frequently excluded, and promoting fair economics. See Maria Adebawale Schwarte, *The Placemaking Factor in Philanthropy and Funding*, PROJECT FOR PUB. SPACES (Mar. 1, 2017), <https://www.pps.org/article/placemaking-factor-philanthropy-funding> [hereinafter PROJECT FOR PUBLIC SPACES].

³⁸ For those readers thrown by the frequent abstractions of architect-speak, here are two illustrations of *place*, one more successful than the other, both quite large albeit very different loci: Boston’s City Hall Plaza and New York’s Riverside Park. See Jon Kamp, *Boston’s Maligned City Hall Plaza Gets a Makeover*, WALL STREET J. (Aug. 1, 2015), <https://www.wsj.com/articles/bostons-maligned-city-hall-plaza-gets-a-makeover-1438375227> (bricked plaza panned as a bleak and unwelcoming gathering spot); James S. Russell, *Beauty Outside the Grid*, WALL STREET J., Aug. 1, 2015, at C13 (park allows cycling the length of Manhattan on a protected path, yielding “a glorious voyage”).

³⁹ MARK SAGOFF, *THE ECONOMY OF THE EARTH: PHILOSOPHY, LAW, AND THE ENVIRONMENT* 166 (1988).

⁴⁰ Cf. James S. Russell, *Enough of Bogus “Placemaking”*, JAMES S. RUSSELL BLOG (Apr. 8, 2015), <http://jamesrussell.net/enough-of-bogus-placemaking/>.

⁴¹ KATZ & NOWAK, *supra* note 32, at 27.

⁴² See *id.* at 28.

⁴³ See *id.* at 28–29.

placemaking creates greater livability and reversing decline to afford spaces of greater vibrancy and public utility.⁴⁴

III. THE PLACE OF YOUTH IN TODAY'S PHYSICAL AND DIGITAL ENVIRONMENTS

How do young people ensconced in this digital age express their preferences to occupy physical spaces within towns? Are their communities' planning policies and zoning laws enabling or discouraging participation in placemaking processes by youth who may prefer something replacing or supplementing face-to-face encounters in real time? Some responses are obvious, others more nuanced. No teenaged persons serve on Planning Commissions, Boards of Adjustment, or design review boards in the vast majority of American communities. Intuitively, we know that no planners populating local governments (except student trainees) are under 21 years of age. While many communities' spatial regulators are beginning to gather "Big Data,"⁴⁵ they have yet to expose what age brackets of adults animate gathering places.

A generation ago, a great slice of puberty-aged youth wanted to congregate at malls;⁴⁶ today, the reverse is becoming more commonplace.⁴⁷ Indeed, exclusion from some consumerism-oriented venues promotes claims that today's youth is alienated from physical spaces,⁴⁸ including traditional gathering places. Furthermore, behavioral health scientists have noted a *higher* presence of agoraphobia (feeling uncertain or anxious in public places), generalized anxiety and panic disorder among youth bullied by peers, or who practice bullying.⁴⁹

⁴⁴ See *id.* at 27. And public utility includes such elements as developing neighborhood economies to increase jobs and job-training opportunities, public health and urban renewal of dilapidated infrastructure. See PROJECT FOR PUBLIC SPACES, *supra* note 37.

⁴⁵ ANTHONY M. TOWNSEND, SMART CITIES: BIG DATA, CIVIC HACKERS, AND THE QUEST FOR A NEW UTOPIA 209 (2013). Big data is in one sense data too large to fit into an Excel spreadsheet, spurring the need for data "mining" and visualization techniques that make it more purposeful.

⁴⁶ See Jeff Kunerth, *Malls Have Become Teens' New Turf*, ORLANDO SENTINEL (Apr. 30, 1985), http://articles.orlandosentinel.com/1985-04-30/lifestyle/0290300294_1_altamonte-mall-shopping-mall-visit-the-mall.

⁴⁷ See, e.g., Kayleen Schaefer, *New Policies Exterminating Teen Mall Rats*, ABC NEWSBLOG (Sept. 23, 2010), <http://abcnews.go.com/Business/shopping-malls-increasingly-putting-restrictions-teens/story?id=11701470> (teens being banned if unescorted by an adult).

⁴⁸ See EUR. PARLIAMENTARY ASS., RECOMMENDATION 1930 FINAL VERSION, §§ 4, 6 (2010), <http://assembly.coe.int/nw/xml/XRef/Xref-XML2HTML-en.asp?fileid=17891&lang=en>.

⁴⁹ William E. Copeland et al., *Adult Psychiatric Outcomes of Bullying and Being Bullied by Peers in Childhood and Adolescence*, 70 JAMA PSYCHIATRY 419, 419, 424 (Apr. 2013).

Do America's urban communities understand why Natives prefer some, but shun other, physical gathering places? Initially, I acknowledge that different people will relate to the experience of place in different ways, and the individual can experience place in different ways at different times.⁵⁰ In Seaside, Florida, hordes of youth swell that community's population during the summer break between school years, engaged in pastimes like souvenir-gathering, food-trailer grazing and beach-going, and wandering afoot, on bikes or electric golf carts, as their moods suit them through this panhandle's New Urbanist landscape, constantly checking their smart-devices in this "ghetto of affluence."⁵¹ Seldom do these youth exhibit outward awareness of their built-environment surroundings or how that environment meets their needs or secures their identities.⁵²

Indeed, a subconscious perception of place includes modes like introverted-sense under which place connects to the person's inner values. See Eric K. Austin, *The Possibility of Effective Participatory Governance: The Role of Place and the Social Bond*, 15 PUB. ADMIN. & MGMT. 234–35 (2010). It is unlikely that one can unearth a formula from environmental psychology research via which "homecoming" occurs universally, or even consistently for a single individual. Recent writings illustrate this principle, speaking of recent migrants into exurbs wanting placemaking "attributes" with urban amenities—in the so-called 18-hour city. See, e.g., Kevin Brass, *18-Hour Cities Reinforce Their Hold on Investors' and Developers' Attention*, URBANLAND (Feb. 1, 2016), <https://urbanland.uli.org/economy-markets-trends/emerging-trends-2016-18-hour-cities-reinforce-hold-investors-developers-attention/>; Randy Drummer, *ULI/PwC Survey: More Investors Shifting Focus to '18-hour' Cities*, COSTAR GROUP NEWS (Oct. 7, 2015), <http://www.costar.com/News/Article/ULI-PwC-Survey-More-Investors-Shifting-Focus-to-18-Hour-Cities/176112>. Eighteen-hour cities are defined as second-tier (by historical population) cities having a higher than average urbanized population, a booming economy and a lower cost of living compared to other metro areas—a happy medium between the mundane 9–5 work-hours typically found in the suburbs and the 24/7 buzzed life in the big cities. The theme is that Millennial job-seekers flock to "18-hour cities" for the best of both worlds: urban living plus the perks of life from the suburbs. Place attachment is not an idea captured in these writings, which admittedly are assembled for developers' consumption.

⁵¹ See Michael Lind, *Urban Philosopher: A Walking Tour of Lewis Mumford*, HARPER'S MAG. (Dec. 30, 1999), <http://newamerican.net/node/5660>.

⁵² The author has visited Seaside on foot more than 50 times, rarely observing younger Millennials paying explicit attention to the built environment initially labeled as "radical" in design, or to the open spaces intended as gathering places. (Nor do their elders, in the main.) In residential areas but a block or two removed from the primary commons (that has largely been devoted to retailing consumption of foods, gewgaws by artisans and tourist goods), however, walking and biking occur, evidencing the "resurrected myth" of American communitarianism. See Al-Hindi & Staddon, *supra* note 11, at 360–61. This is not to say that Seaside's experiences never create psychological connections to that community contributing to identity self-conception; but those connections seem far between. See Austin, *supra* note 49, at 240–42. I observe little cognitive awareness among Seaside's part-time residents of the "aesthetics of nostalgia and collective memories" undergirding this village's alluring urbanism. See Jon Rowland, Book Review, 87 URB. DESIGN QTLY. 43 (2003) (reviewing THE SEASIDE DEBATES: A CRITIQUE OF NEW URBANISM (Todd W. Bressi ed., 2002)).

In midtown Phoenix, the independent Changing Hands Bookstore occupies the bulk of a building and hosts an interior coffee/wine bar. Opposite that wine bar (separated from its reading matter shelving by this bar), a cavernous area affords a few tables and seats. This realm is detached from the store and the bar but displays two television monitors and a few works of art between hosting receptions, meetings, and one-off gatherings (activities the space was intended to serve). When not being used for parties and group gatherings, however, a small crowd of 20s and early 30s-ish persons invariably captures that sparse seating. Frequently headphone-clad, they surf the net, review their caches of photographs, and respond to and initiate text messages. These youths seldom buy any goods or speak or nod to one another, focusing instead on their technological devices' workloads.

The author asks a Millennial-aged bookseller her opinion of the seeming "magnetism" of this mini-piazza. Noting the virtues of the in-store bar's high-speed Internet connection and effective building air conditioning, she ventures that the "cavern" somehow invokes a sense of comfort, or perhaps, belonging. Belonging to what, affiliating with whom, I wonder—if not the other book-browsers, or bar patrons, what spurs this "identification?" Perhaps comfort stems fundamentally from the place's scale—large enough to afford anonymity, yet hardly unwelcoming. Do scale and Internet connectivity alone generate some visceral homecoming?⁵³ Or, is the trigger some inchoate sense of shared-spatial community weak ties with fellow users of the place?⁵⁴ Perhaps digital media redefines situational geography, undermining the "traditional relationship between physical setting and social situation."⁵⁵

Sarah Pink posits that place, socially experienced, today consists of a wide range of shared but multi-sensory lived and collaborated experiences, and, therefore, the concept of place, related to local visual cultures, should be

⁵³ See SAGOFF, *supra* note 39, at 254.

⁵⁴ Patrick Devine-Wright describes the concept of "place attachment" as "positively experienced bonds, sometimes occurring without awareness, that are developed over time from the behavioral, affective, and cognitive ties between individuals and/or groups and their sociophysical environment." See Patrick Devine-Wright, *Explaining "NIMBY" Objections to a Power Line: The Role of Personal, Place Attachment and Project-Related Factors*, 45 ENV'T & BEHAV. 761, 763 (2013).

⁵⁵ JOSHUA MEYROWITZ, NO SENSE OF PLACE: THE IMPACT OF ELECTRONIC MEDIA ON SOCIAL BEHAVIOR 6–7 (1985). Yet my speculation is immaterial. Those with the greatest influence and power typically dictate where places are made. Yet when these "leaders" substitute their judgments for the instincts of those intended to nurture and be nurtured by the place, and their judgments do not promote visceral homecoming for future potential users, what did the community accomplish?

dynamic.⁵⁶ Otherwise stated, in a technologically-mediated world, the physical world does not stand apart. Instead, technology affords new ways to describe and engage with the physical world, evidenced in part by the Internet's wealth of geographical data available from public participation in tagging and increasing information on specific sites.⁵⁷ For some, mobile technologies increasingly explain how space and place are formed and experienced.⁵⁸

Assume many communities today are no longer comprised exclusively of small, somewhat stable physical populations possessed of thick, self-organizing social networks. The tangible social fabric increasingly is digitally mediated.⁵⁹ If so, perhaps hybrid networks collectively construct social norms conserving common property resources identified as "places" experienced.⁶⁰ How can planners anticipate desires of future generations for physical gathering-places and hubs, tomorrow's piazzas, without needed youthful inputs? Perhaps today's planning decisions are justified by the argument that "they'll come around" to the planner's informed perspective—that youthful preferences for physical place mature as adulthood and parenting phases arrive.⁶¹ This view dovetails, to a degree, with the belief that civic identity can exist even in a "non-place urban realm."⁶² Since Native preferences today

⁵⁶ Sarah Pink, *Mobilising Visual Ethnography: Making Routes, Making Place and Making Images*, 9 FQS 3, 3 (Sept. 2008), <http://www.qualitative-research.net/index.php/fqs/article/view/1166>.

⁵⁷ See Johanna Brewer & Paul Dourish, *Storied Spaces: Cultural Accounts of Mobility, Technology and Environmental Knowing*, 66 INT. J. HUM. COMP. STUD. 963, 963–76 (2008).

⁵⁸ See Cornelio & Ardévol, *supra* note 25, at 330.

⁵⁹ See DAVIES, *supra* note 16, at 113.

⁶⁰ See ELINOR OSTROM, *GOVERNING THE COMMONS: THE EVOLUTION OF INSTITUTIONS FOR COLLECTIVE ACTION* (1990). Ostrom posits in her book that common pool resources need not deteriorate if managed by durable cooperative institutions organized and governed by the users of the resource. See *id.* at 7, 64–5. Cornelio & Ardévol, *supra* note 25. Note the ongoing hybridization of physical and digital realms, as locative media affects people's sense of physical space. See *id.* at 329–30.

⁶¹ See JOEL KOTKIN, *THE HUMAN CITY: URBANISM FOR THE REST OF US* 16, 165 (2016) [hereinafter *HUMAN CITY*]; Joel Kotkin, *What Jane Jacobs Got Wrong About Cities*, DAILY BEAST (Aug. 1, 2015), <https://www.thedailybeast.com/what-jane-jacobs-got-wrong-about-cities> (when youth marry and begin child-raising, they head for the less-costly and noisy suburbs).

⁶² See, e.g., *HUMAN CITY*, *supra* note 61, at 163; JOEL KOTKIN, *THE NEW GEOGRAPHY: HOW THE DIGITAL REVOLUTION IS RESHAPING THE AMERICAN LANDSCAPE* 5–6 (2001). See generally Melvin M. Webber, *The Urban Place and the Nonplace Urban Realm*, in *EXPLORATIONS INTO URBAN STRUCTURE* 79–153 (Melvin M. Webber et al. eds., 1964) (urban public spaces like piazzas do not engender socially cohesive communities, as physical place is becoming reduced in importance). Robert Goodspeed argues today that digital information and communications technologies have "loosened the ties" between communities and places, as the latter are mere "venues for social and economic exchanges primarily orchestrated through digital systems." See

regarding place are not readily demonstrable, exploring their preferences and extrapolating the desires and intentions of successive generations about physical gathering and placemaking is worthwhile. Conversely, communities will earn returns by learning something of the world view of the forthcoming generation of adults—Natives who never have experienced life without ubiquity of the Internet and personal mobile devices. I delve, albeit in broadside, into that *Weltanschauung* in Part IV.

IV. MILLENNIAL PERSPECTIVES AND POTENTIALS

If communities are unclear what Natives require from placemaking, what can we infer based upon our understanding of their aspirations and beliefs? If only this easily were divined. The Sections below explore perspectives on Millennial behavior from analysts of this “tranche” of Americans. “Millennials” are a much typified and diagnosed generation, beginning with Messrs. William Strauss’ and Neil Howe’s work in *Millennials Rising: The Next Great Generation*.⁶³ These authors identified Millennials as persons graduating secondary school beginning in 2000⁶⁴; this dictated a generational-launch date of approximately 1980. Strauss and Howe define a social generation as the aggregate of persons born over a span of roughly twenty years, or about the length of one “phase” of human life.⁶⁵ Adopting these authors’ formulation for discussion, it identifies as a distinct generation a social cohort beginning about 2005, commonly labeled as “Generation Z.” I divide Millennials into two groups, one composed of those born between 1980 and 1996 (sometimes known as “digital immigrants,” I refer to them as First Wave Millennials or “FWMs” for short) and a second group born from 1997 forward (whom I refer to as “Natives”⁶⁶). The first of the Natives cohort enters the non-seasonal employee workforce in substantial numbers about the time this paper is published,⁶⁷ assuming entry and uninterrupted completion of

Robert Goodspeed, *Community and Urban Places in a Digital World*, 16 CITY & COMMUNITY 9, 9 (Mar. 2017), <https://onlinelibrary.wiley.com/doi/pdf/10.1111/cico.12218>.

⁶³ See NEIL HOWE & WILLIAM STRAUSS, *MILLENNIALS RISING: THE NEXT GREAT GENERATION* 43–44 (2000) (describing seven distinguishing “traits” of millennials).

⁶⁴ See *id.* at 55–56.

⁶⁵ See *id.* at 67.

⁶⁶ This term is not my invention, and myriad names exist for youth in this sub-cohort. A recent example is the “App Generation.” See HOWARD GARDNER & KATIE DAVIS, *THE APP GENERATION: HOW TODAY’S YOUTH NAVIGATE IDENTITY, INTIMACY, AND IMAGINATION IN A DIGITAL WORLD* 6 (2013). Others include “Gen Z,” and “the iGen.”

⁶⁷ See Bruce Mayhew, *Generation Z Are Entering the Workforce*, BRUCE MAYHEW BLOG (Feb. 20, 2014), <https://brucemayhew.wordpress.com/2014/02/20/generation-z-are-entering-the-workforce/>.

elementary and secondary school, and prompt passage thereafter into the working world.⁶⁸

Natives from the age of cognition expect a torrent of technology innovations, oblivious to “progress” driven moments. Anticipating successive discoveries in mind-work facilitation, Natives expect and collect devices and related services that awestruck FWMs view as transformative and intimidating. Because Natives find oxymoronic those FWM descriptions of “disruptive innovations” in computer technology and Cloud-based applications, they accept serial technological pivoting and judge innovations mainly on the basis of whether they are personally useful,⁶⁹ absorbing quickly the most useful innovations (while ignoring the rest) but expecting (in short order) substitutions improving upon their adopted technologies.⁷⁰

⁶⁸ The 1997 boundary demarcating FWMs and Natives arises from two “knowledge economy” watershed events: sale of NeXT Software to Apple Computers, and Java becoming a standardized programming language. See Emma Mulqueeny, *Introducing 97ers: Social Digital Natives Who Will Break Things Better*, YOUTUBE (Mar. 16, 2015), <https://youtube.com/watch?v=1hbfta7tbZ0>. The first event enabled Steve Jobs to regain the helm of Apple, with the resulting revolutions (through Jobs’ death in 2012) in the digitization of recorded music and portable technology-device sectors. See THOMAS J. HOLD & BERNADETTE H. SCHELL, *HACKERS AND HACKING: A REFERENCE GUIDEBOOK* 210 (2013). The second event, the ECMA-262 specification of June 1997, rendered Java the dominant standard scripting language for Web pages. See AXEL RAUSCHMAYER, *THE PAST, PRESENT, AND FUTURE OF JAVASCRIPT 2* (2012); DAVID HERMAN, *EFFECTIVE JAVASCRIPT: 68 SPECIFIC WAYS TO HARNESS THE POWER OF JAVASCRIPT 1* (2012). Combined with Microsoft’s promotion of its Webpage scripting under the rubric “Dynamic HTML,” Java’s acceptance by self-taught programmers birthed a “do it yourself” amateur community sweeping aside professional programmers, thereby democratizing authorship of Web pages. See DAVID BOLLIER, *VIRAL SPIRAL: HOW THE COMMONERS BUILT A DIGITAL REPUBLIC OF THEIR OWN* (2009). These concurrent events ensured that a technologically adroit American public, most of them youths, would seize control of the Internet and its “vehicular technologies” after 1997, transmuting “acceptance” of technology into expectation, beginning by integrating multiple devices with the services of the Internet such as Voice over Internet Protocol and Internet Protocol television.

⁶⁹ See Xiaoqing Gu et al., *Meeting the “Digital Natives”: Understanding the Acceptance of Technology in Classrooms*, 16 EDUC. TECH. & SOC’Y 392, 394 (2012). Indeed, the author expects this journal’s FWMs editors to grapple with the significance of this attitudinal collision between Millennial subgroups.

⁷⁰ See, e.g., Nick Bilton, *Be the Star of Your Own Snapchat Story*, N.Y. TIMES (Jan. 14, 2015), http://www.nytimes.com/2015/01/15/style/be-the-star-of-your-own-snapchat-story.html?_r=0.

Sites like Facebook, Twitter and Instagram offered places to capture and share your memories, but after using them for several years, I feel like someone who was sold a lemon by a used-car salesman. These social media sites have become a highly edited, cropped and filtered version of real life. And the fact that they promise perpetuity only makes them worse.

Id.

Intimately conversant with virtual worlds and online games, Natives (and likely successive generations within the American work force) increasingly will absorb the unity of “body and mind” with technology.⁷¹ Natives (including FWMs’ younger brothers and sisters) view FWMs as bizarrely stodgy, clinging to laptop computers, electronic mail platforms, and social media sites like Facebook and Twitter.⁷² Natives and their successors sense little distinction between online and physical-world acquaintances,⁷³

As of March 1, 2015, the next big thing (maybe) was Snapchat Stories. *See id.*; Max Chafkin & Sarah Frier, *How Snapchat Built a Business by Confusing Olds*, BLOOMBERG BUS. (Mar. 3, 2016), <http://www.bloomberg.com/features/2016-how-snapchat-built-a-business/>.

⁷¹ *See* SHERRY TURKLE, *THE SECOND SELF: COMPUTERS AND THE HUMAN SPIRIT* 253 (2005) (describes the condition of “emergence,” when the human need is not inform the computer everything it needs to know; instead, the human arranges for the computer to obtain—by being told or by learning—the elements out of which something non-programmed “emerges”); SHERRY TURKLE, *ALONE TOGETHER: WHY WE EXPECT MORE FROM TECHNOLOGY AND LESS FROM EACH OTHER* 141, 143 (2011) [hereinafter *ALONE TOGETHER*] (robots, and even rooms, will be emotionally “alive” and collaborate with humans); Tom Junod, *Steve Jobs is Dying for Us All*, *ESQUIRE MAG.* (Aug. 25, 2011), <https://www.esquire.com/news-politics/a10804/steve-jobs-dying-2011-6321233/> (the “logic of technology has always been offered as an answer to the logic of mortality; as it turns out, it is the same logic—the logic of inexorable advance”). Indeed, social technologies are making more inroads in the workplaces where their use was previously forbidden. *See Transforming the Business Through Social Tools*, MCKINSEY & COMPANY, <https://www.mckinsey.com/industries/high-tech/our-insights/transforming-the-business-through-social-tools> (Jan. 2015).

⁷² For those over 50 years of age, what’s below describes by analogy the gulf between FWMs and Natives where technology is concerned. Realize, initially, that in 1964, the Xerox Corporation first introduced its Long Distance Xerography (LDX) technology connecting two offices. In 1966, Xerox introduced the Magnafax Telecopier, a 46-pound facsimile machine that was easier to use than its predecessor and, most significantly, could be connected to any telephone line, enabling the transmission of one page of print to its single recipient in about 6 minutes. (Compare today’s “tweet” of 140/280 characters or less on Twitter; this technology can connect millions of users worldwide in under six seconds from the moment of its transmission.) My summary view is that if you’re over 50, you’re hopelessly behind the times measured by Native engagement with technological advances. At 68 years of age, I am a techno-skeptic (and there’s a blog post for that, see Robert Ford Burley, *On Techno-“Skepticism”*, *THIS WEEK IN TOMORROW* (Dec. 29, 2015), <http://www.thisweekintomorrow.com/on-techno-skepticism-vol-3-no-9-2/>), therefore especially well-suited to speak to the expectations of Natives from placemaking and land use governance realms.

⁷³ *See, e.g.*, STACY HORN, *In the Flesh, in CYBERVILLE: CLICKS, CULTURE, AND THE CREATION OF AN ONLINE TOWN* 66 (1998) (in the successful virtual communities, people who participate are friends and neighbors just as in the physical world); Janine Latus, *Technological Trade-offs*, *VIRGINIA MAG.* (2015), http://uvamagazine.org/articles/technological_trade_offs (noting Prof. David Mick’s view that online folks are of belief “they’re together with the person who is by their side and with the person they’re texting with.”); David Glen Mick et al., *Origins, Qualities, and Envisionments of Transformative Consumer Research*, in *TRANSFORMATIVE CONSUMER RESEARCH FOR PERSONAL AND COLLECTIVE WELL-BEING* 3 (David G. Mick et al. eds., 2012); Gary Burnett, *Information Exchange in Virtual Communities: A Typology*, 5 *INFO. RES.*

deemphasizing distinctions between online and in-person encounters. The second observation is born of perpetual stimulation from technology. Frequently, Natives have limited solitude to reflect upon the meaning of the rush⁷⁴ of data and contacts being absorbed—or, at times, deflected.⁷⁵

Natives became sentient preteens and adolescents as industrialized societies' middle classes accessed iPods, iPhones, and iTunes, and rode the crest of evolving social media, reaching a state in which Web 2.0⁷⁶ technologies became objects of consciousness (hence “native” in their orientation to evolving software as a service,⁷⁷ for example). Natives will grasp instinctively Web 3.0 (sometimes called the Symantec Web)⁷⁸, where the Internet is suffused with open data across distributed databases and semantic web technologies' “comprehend[ing]” pieces of information stored and,

(Jul. 2000), <http://www.informationr.net/ir/5-4/paper82.html> (participants in virtual communities spend a portion of their time simply engaging in what could be considered “small talk,” the kinds of personal information (including gossip and rumors) and empathic behavior that individuals use to maintain a sense of personal contact and interest with others).

⁷⁴ And it is a “rush,” literally; the rapid movement across Internet programs has been demonstrated to increase the user's level of dopamine. See ALONE TOGETHER, *supra* note 71, at 227.

⁷⁵ See, e.g., Matt Richtel, *Attached to Technology and Paying a Price*, N.Y. TIMES (Jun. 6, 2010), http://www.nytimes.com/2010/06/07/technology/07brain.html?_r=2&scp=1&sq=technology%20and%20multitasking&st=nyt (spouse complaining that Internet entrepreneur “can no longer be fully in the moment”). This statement suggests neither that much of the data and interface being thrust upon commuters actually is being absorbed, or that much of that data and interactions is worth absorbing. There is some study in the marketplace, however, that Web “surfers” can be more productive and have elevated levels of engagement when investigating Web content; the same is not true, apparently, about the distractions arising from responding to personal emails. See Vivien K. G. Lim & John J. Q. Chen, *Cyberloafing in the Workplace: Gain or Drain on Work?*, 30 BEHAV. & INFO. TECH. 343, 343 (2009).

⁷⁶ From 1999 forward came the evolution of the “read-write” Web, or Web 2.0, which, by contrast to the static nature of its predecessor, featured interaction and collaboration. In a wave of development characterized by wikis, blogs and social media, users were now controlling the content of the Web rather than merely observing it. See Tom Fleerackers, *Web 1.0 vs Web 2.0 vs Web 3.0 vs Web 4.0 vs Web 5.0 – A Bird's Eye on the Evolution and Definition*, FLAT WORLD BUS. (2011), <https://flatworldbusiness.wordpress.com/flat-education/previous/web-1-0-vs-web-2-0-vs-web-3-0-a-bird-eye-on-the-definition/>.

⁷⁷ See *Software as a Service (SaaS)*, GARTNER IT GLOSSARY, <http://www.gartner.com/it-glossary/software-as-a-service-saas/>.

⁷⁸ See Greg Sanders, *Mashup City: Tools for Urban Life and Urban Progress in the Internet Age*, in STRENGTHENING COMMUNITIES WITH NEIGHBORHOOD DATA 115, 132 (G. Thomas Kingsley et al. eds., 2014), https://www.urban.org/sites/default/files/13805_urban-kingsley.pdf; Nora Spivack, *Minding the Planet: The Meaning and Future of the Semantic Web*, LIFEBOAT FOUND., <http://lifeboat.com/ex/minding.the.planet> (last visited Nov. 9, 2018) [hereinafter *Minding the Planet*]; Nora Spivack, *Web 3.0: The Third Generation Web is Coming*, LIFEBOAT FOUND., <https://lifeboat.com/ex/web.3.0> (last visited Nov. 9, 2018).

logically, recognize their intersections.⁷⁹ Such recognition enables the Internet browser to deliver automatically user content relevant to the inquirer's interests.⁸⁰ Successive innovations in technologies enable numerous activities in the browser (such as taking and syncing notes and files within the browser, voice-recognition, video calls, and messaging) through programming protocols such as HTML5 instead of through conventional software downloaded to a computer or mobile device.⁸¹ File-sharing features replicate functions or Web services, steadily improving access across multiple devices through services like Google Drive or Dropbox.⁸² Browser capacities are extended to newly connected devices like those in automobiles.⁸³ Ultimately in Web 3.0, one device worn or held by the individual integrates the mortal with inanimate objects and autonomous agents, meanwhile receiving an inrushing torrent of data.⁸⁴ Now that we know something of their tools, what can we learn of their interactivity with others, at least of their age cohort?

A. *Natives Desperately Seeking Community and Homecoming, According to Dr. Turkle*

Advances in computer hardware, the Cloud and computer-mediated communication aside, may comfort Natives who desire to be perpetually

⁷⁹ Of course, whether Natives themselves comprehend is a different matter. Individual learning in solitude seems to have been replaced by combining interests with those of others in communities which successively fragment and recombine in different configurations. See Carmen Sonia Duse & Dan Maniu Duse, *The Teacher of the Generation Z*, FUTURE ACAD. CONF. PAPER, UK (2016). The Duses muse whether the Native's ability to learn and reproduce social and relational behaviors remains a key to success in life. *Id.*

⁸⁰ Thus, the 'read-write-execute' Web, where users can create and execute their own tools and software to manipulate and extract information, rather than relying upon other people's software and websites. The term, like the phrase "the semantic Web," focuses on the concept of enhancing the 'intelligence' of the underlying Internet architecture—the idea that information will be organized and identified in ways that makes searches more effective because the platform 'understands' and makes connections between pieces of data. In full flower, Web 3.0 will be "applications that are pieced together"—with the characteristics that the apps are relatively small, the data is in the cloud, the apps can run on any device (PC or mobile), these applications are very fast and very customizable to any machine, and are distributed virally (social networks, email, etc.). See Eric Schmidt, *Web 2.0 vs. Web 3.0*, YOUTUBE (Aug. 2, 2007), http://www.youtube.com/watch?feature=player_embedded&v=TOQJmmdw3b0#!; see also BOLLIER, *supra* note 68, at 114. In the Internet of Things, machines understand content and generate it in the same manner of humans.

⁸¹ Jessica E. Lessin, *Web Browsers are Reinvented*, WALL STREET J. (May 13, 2013, 7:44 PM), <http://online.wsj.com/article/SB10001424127887324031404578481180131997580.html>.

⁸² *Id.*

⁸³ *Id.*

⁸⁴ See *Minding the Planet*, *supra* note 78.

connected with everyone in any environment. Ironically, perhaps, many Natives not yet entering the workplace feel isolated, participating in superficial and sterile (because fundamentally disengaged) relationships exploited for their limited value-added. These persons can become anonymous, their communiqués “processed” by other Natives, all slaving away to maintain the appearance of being fully engaged.⁸⁵ Studies show that while networked devices supposedly free up time for completion of more tasks,⁸⁶ that promise rarely is delivered upon.⁸⁷ Instead of productivity increases, constant connection within their social networks, coupled with minimal interpersonal contact, seems like repulsing menacing insect swarms.⁸⁸ Friendships, so-called, become things to manage if you have many, so you approach each of them brandishing tools.⁸⁹ The paradox of the Internet commune, some say, is that the fugue of activity decreases time available for the individual to engage in uninterrupted, sober consideration of solutions to complex situations or problems.⁹⁰

More satisfying to Natives are altruistic communities that feature shared concerns and responsibilities, impose real consequences on individual members but in relative safety, and enable them to achieve calm.⁹¹ So calmed,

⁸⁵ See, e.g., ALONE TOGETHER, *supra* note 71, at 168, 207, 224–25 (demands from fellow communers become depersonalized and individuals feel like communications “maximizing machines”; Turkle particularly cites Chatroulette (<https://chatroulette.com/>) as an instance of depersonalization of those with whom contact is serial but often meaningless). The knockoffs of that site are identified, in part, on <http://nextplease/>.

⁸⁶ See ALONE TOGETHER, *supra* note 71, at 164. Skeptics like Holman Jenkins find the fundamental interest of those liberated by technology is to consume media, which he characterizes as a limited form of human communication. See Holman W. Jenkins, Jr., *Amazon and Our Giant Connected Heads*, WALL STREET J. (Oct. 1, 2011), <http://online.wsj.com/article/SB10001424052970204226204576602594075240176.html>.

⁸⁷ This in part is because among many youth today, the validation by another of one’s feeling becomes an integral part of the feeling itself. See ALONE TOGETHER, *supra* note 71, at 177. Indeed, having a feeling without being able to share it heightens one’s sense of anxiety. *Id.* at 245.

⁸⁸ See *id.* at 207 (Natives send out text messages in rapid fire but receive a greater number in return, creating a Sisyphian-like condition); Benoit Denizet-Lewis, *Why Are More American Teenagers Than Ever Suffering From Severe Anxiety?*, N.Y. TIMES (Oct. 11, 2017), <https://www.nytimes.com/2017/10/11/magazine/why-are-more-american-teenagers-than-ever-suffering-from-severe-anxiety.html>; Jennifer Breheny Wallace, *The Teenage Social-Media Trap*, WALL STREET J. (May 5, 2018), <https://www.wsj.com/articles/the-teenage-social-media-trap-1525444767> (hyper-vigilance required to maintain online image provokes anxiety among younger females and takes away time for sleep, among other things).

⁸⁹ See Sherry Turkle, *Stop Googling. Let’s Talk.*, N.Y. TIMES (Sept. 26, 2015), http://www.nytimes.com/2015/09/27/opinion/sunday/stop-googling-lets-talk.html?_r=0.

⁹⁰ See ALONE TOGETHER, *supra* note 71, at 166, 168, 171, 202–03.

⁹¹ See *id.* at 238–40.

instead of deflecting conflicts and issues, Natives internalize issues requiring contemplation before implementing individual or collaborative effort. Such a community is nourished by virtues like interpersonal attention, commitment and focusing upon “one thing at a time.” Those seeking to develop Natives as productive and content adults should create environments alternating between communal gathering in real time and “quiet time,” freeing oneself for reflection. This, Turkle argues, must become an acquired Native skill, because “[i]n the digital life, stillness and solitude are hard to come by.”⁹²

Sherry Turkle’s assessment addresses Natives’ perceptions of community pertinent to spatial placemaking. Turkle laments the fact that community today is bifurcated between physical and online presences, noting some Natives lament that “no one is where they are. They’re talking to someone miles away.”⁹³ She notes that FWMs too often are most comfortable “with public spaces in which they can be physically present in a group *yet isolated* within their personal networks.”⁹⁴ Turkle observes that FWMs and Natives alike are assured of being “in touch with a lot of people whom they also keep at bay.”⁹⁵ Ultimately, Turkle finds online communities inauthentic, lacking true community, which is characterized by physical proximity infused with “shared concerns, real consequences and common responsibilities,”⁹⁶ illustrated by coffee shops, parks, and barbershops, “those points of assembly” for acquaintances and neighbors, “the people who made up the landscape of life.”⁹⁷ These persons attend to one another’s needs, helping each other yet demanding accountability for each one’s views and behaviors.⁹⁸ Turkle finds the online communities (for example, Facebook) of FWMs (and newer versions like Instagram or Askfm) developing for Natives to be flawed for lacking genuine human support, ultimately lonely places, asking “what values . . . follow from this new location . . . what do we live for?”⁹⁹ At face value,

⁹² See *id.* at 272.

⁹³ See *id.* at 277.

⁹⁴ See *id.* at 14; see also *supra* text between notes 52–54.

⁹⁵ ALONE TOGETHER, *supra* note 71, at 14.

⁹⁶ See *id.* at 239.

⁹⁷ See *id.*

⁹⁸ See *id.*

⁹⁹ *Id.* at 276–77. On the other hand, some scholarship indicates that the picture is not dire; for instance, one study indicates that most online communication involves positive or at least neutral interactions among friends. See, e.g., Marion K. Underwood et al., *The BlackBerry Project: The Hidden World of Adolescents’ Text Messaging and Relations with Internalizing Symptoms*, 25 J. RES. ADOLESCENCE 101, 101, 113 (2013), <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4348020/> (results provided little evidence that texting frequency in and of itself was related to internalizing problems like depression, but that

Turkle's observations lead one to conclude Natives are a generation thirsting for community, homecoming, and, accordingly, physical place.¹⁰⁰ And further, place may be where youth may confide in others and learn the capacity for authentic empathy, in mutually fulfilling, if messy, relationships. No robotic connection can fulfill these needs.¹⁰¹

B. Natives and Community Digital Mediation, Seen from Bilton's Perspective

Nick Bilton, a self-confessed "borderline" FWM,¹⁰² is more sanguine about the disparate worlds of physical and online presences. His thesis is that when your digital world occupies the center of the map (the individual is the starting point of today's digital world, which has become hyper-personalized¹⁰³), your conception of place and community are forever altered.¹⁰⁴ You see your online presence as an imagined community, so-called

intense engagement in text messaging may relate to adolescent adjustment problems); *see also* Burley, *supra* note 72.

¹⁰⁰ The face value of Turkle's conclusions is challenged in a recent (2015) review by Duke University researchers George and Odgers that concluded that it is premature to confirm Prof. Turkle's hypotheses about the adverse impacts of mobile technologies' incessant use. *See* Madeline J. George and Candice L. Odgers, *Seven Fears and the Science of How Mobile Technologies May Be Influencing Adolescents in the Digital Age*, 10 PERSP. ON PSYCHOL. SCI. 832, 846 (2015). Most specific to this paper's themes, George and Odgers posit that there is little evidence currently that online presence reduces the quality of existing friendships or creates social isolation from friends and relatives. *See id.* at 841–42. The authors conclude it is possible that offline behaviors simply are mirrored within online realms. *See id.* at 846. On the other hand, Catherine Steiner-Adair reminds us that before social media, while at home, one could be a more relaxed, authentic version of oneself. *See* Wallace, *supra* note 88. Home was a place made by a family unit, the locus of place-attachment. *Id.*

¹⁰¹ *See* Sherry Turkle, *Why These Friendly Robots Can't Be Good Friends to Our Kids*, WASH. POST (Dec. 7, 2017), https://www.washingtonpost.com/outlook/why-these-friendly-robots-cant-be-good-friends-to-our-kids/2017/12/07/bce1eaea-d54f-11e7-b62dd9345ced896d_story.html?utm_term=.a2823eec390d.

¹⁰² NICK BILTON, *I LIVE IN THE FUTURE & HERE'S HOW IT WORKS: WHY YOUR WORLD, WORK & BRAIN ARE BEING CREATIVELY DISRUPTED* 95 (2011).

¹⁰³ *See id.* at 91.

¹⁰⁴ *See id.* at 162. Bilton does not believe there is an information overload problem or, if one existed, that Natives have solved it. *See id.* at 96. In Bilton's view, trusted anchoring communities (social networks) exist to create a feeling of community as individuals navigate the digital universe. *See id.* at 96–97. They do this by providing cognitive road maps aiding in navigation of information, a sifting of sorts, relieving the mental taxation of processing so much data. *See id.* at 97. Anchors are chosen by individuals making judgments about who is authoritative and who cannot be trusted in what areas of content processing. *See id.* at 102. In this

because the individual never will meet most of the members of her online communities but feel connections with others nonetheless.¹⁰⁵ Indeed, Bilton believes online users feel a “strong sense of camaraderie” and fellow-traveling with others, albeit this sense of community exists only in the imagination.¹⁰⁶ Bilton notes that the ubiquitous smart phone is an extension of relationships, not replacing bonds with others—but extending and perpetuating them.¹⁰⁷ Ultimately, the mobile phone becomes its owner’s hub of always-on, real-time information¹⁰⁸—the digital equivalent of the assembly space like a barber shop or local café.¹⁰⁹ What Bilton believes is needed in a physical location is infrastructure, allowing constant connection to the Internet and enabling real-time creation of content to be shared, thereby maintaining ties within the highly communicative network of the online community.¹¹⁰

fashion, Natives have no need to be anxious about information overload or conversely, missing something, whether online or off. *See id.* at 101–02.

¹⁰⁵ *See id.* at 84–85; Wallace, *supra* note 88 (social media offers a low-stakes way to communicate with peers and a sense of belonging and support to youth on the social margins).

¹⁰⁶ *See* BILTON, *supra* note 102, at 84–85. Danah Boyd also speaks of the “imagined community” at the intersection of people, technology and practice, networked publics unbound by geographical settings. *See* DANAH BOYD, *IT’S COMPLICATED: THE SOCIAL LIVES OF NETWORKED TEENS* 8–9 (2014). Each of these authors cites the work of Benedict Anderson, who argued that a “nation” can consist of nothing more than an aggregation of persons who share the same imaginative sense of community. *See* BENEDICT ANDERSON, *IMAGINED COMMUNITIES: REFLECTIONS ON THE ORIGIN AND SPREAD OF NATIONALISM* 6–7 (rev. ed. 2006). Bilton sees no consequential distinction between “real-life friendships that involve talking or looking someone in the eye and virtual ones in which the communication is through e-mail or text messages. Any of those relationships can be good friendships.” *See* BILTON, *supra* note 102, at 81; *see also* DON TAPSCOTT, *GROWN UP DIGITAL: HOW THE NET GENERATION IS CHANGING YOUR WORLD* 199 (2009). The Pew Trusts’ survey of Summer 2015 suggests that Bilton is not alone, and that many young Millennials claim numbers of friends online that will never become friends in the physical realm. *See* Dino Grandoni, *Teenagers Keep and Make Friends Online, Pew Says*, N.Y. TIMES (Aug. 6, 2015, 11:00 AM) http://bits.blogs.nytimes.com/2015/08/06/teenagers-keep-and-make-friends-online-pew-says/?_r=0. Nothing in Bilton’s book reveals any of his views of physical companionship and sense of belonging. The only reference in his book to “belonging” addresses *belonging to a social network* in which one is “a worker in someone else’s hive.” *See* BILTON, *supra* note 102, at 127. Bilton says that good fortune in the online world is not to be “locked up in a big hall with our arms nearly touching.” *See id.*

¹⁰⁷ *See* BILTON, *supra* note 102, at 194; George & Odgers, *supra* note 100, at 841.

¹⁰⁸ *See* BILTON, *supra* note 102, at 193.

¹⁰⁹ Bilton notes that Natives are comfortable sharing publicly, with friends on websites, but not with the general public. *See id.* at 121. He asserts that communal places can be entertaining but aren’t necessary if sitting alone watching personalized and customized media while exchanging comments with friends about those experiences in their shared digital environment. *See id.* at 170–72.

¹¹⁰ *See id.* at 194.

Bilton believes that the next demand will be for first person opportunities creating “experiences that offer multiple layers of content” and afford “true interaction,” featuring simultaneous media to captivate the senses and stimulate higher level reasoning.¹¹¹ (Bilton may be speaking here of virtual reality technologies.) He believes future technology will respond to the individual’s (and her devices’) precise location, allowing even greater customization and personalization of information, entertainment and advertising, featuring portability of content from one technology device to another as a person’s movements require.¹¹² While Bilton’s vision of belonging and community may be alien to those raised up believing that human touch is consequential, what matters here is how (assuming Bilton’s accurate insights) this view of community affects placemaking.

C. *Do Natives Seek Out or Occupy Physical Environments?*

Danah Boyd observes that today’s adults assume their own childhoods, unencumbered by digitally-mediated obligations, were better, “richer, simpler and safer” than those of current youth.¹¹³ Few Natives care that adults hold that view and their attitudes toward places are unaffected by the fact that adults would prefer Natives enjoy physical public places (contrasted to networked public spaces), curated with taxpayer money for their enjoyment and that of other generations.¹¹⁴ Instead, Natives care about finding places where they feel safe and welcome spending time with a variety of friends.¹¹⁵ Youth will carve out their own identities, experimenting with self-presentation methods,¹¹⁶ with

¹¹¹ See *id.* at 223.

¹¹² See *id.* at 238–40. Mapping of the precise dimensions of one’s immediate surroundings in real time is another forthcoming dimension. See The Verge, *Google’s Project Tango Indoor Mapping*, YOUTUBE (Feb 22, 2016), <https://www.youtube.com/watch?v=eYHprTlsmQ&t=1s&list=LLwCZjp48iWLi4ZmfPJA9Qxw&index=3>.

¹¹³ See BOYD, *supra* note 106, at 16.

¹¹⁴ The reader might consider this analogy about the younger persons interest in the older person’s perspective: Nearly weekly, I reject Lawyer.com’s “potential client inquiry,” since my narrow-minded attitude is that (a) my professional profile is present in numerous Internet locations and, therefore, (b) if the younger person’s inquiry about legal services is genuine, she will minimally search, locate my firm’s website, retrieve my telephone number and email address, and contact me directly instead of through some social-media mediator. What I have observed, by negative inference, is the inquirer moves on to another lawyer who will respond through a trusted platform. Ms. Boyd likely would argue that I naively overestimate the capacity of a Native to perform the necessary search. *Id.* at 22. Natives see no purpose in abandoning their ways of discovering information and making contacts to suit the customs and practices of others. Sniff.

¹¹⁵ See *id.* at 200–01.

¹¹⁶ See PALFREY & GASSER, *supra* note 8, at 32.

or without adult support or empathy. Part of that identity-statement will be choosing where to aggregate online and in the physical realm because adolescents have a fundamental desire to form relationships with persons they choose.¹¹⁷ Yet as Boyd explains, while a critical aspect of “coming of age” is to inhabit public spaces for social purposes, many public spaces where adults gather (being age-restricted venues) are inaccessible to teens.¹¹⁸ Boyd posits that adolescent migration to the online world in part is motivated by seeking privacy in an environment of intruding parents and teachers, making social media a youth-centric public space.¹¹⁹ That youthful tendency to “opt out” from social media sites gaining popularity among adults (when elders “friend” a mortified child Facebook user) arises from the same sense of privacy and independence-seeking. So, it is not anomalous for young people to avoid physical public places not addressing their desires and preferences. Neither will it be odd for these youth, reaching maturity, to migrate away from such physical spaces if they habitually avoid aggregating hubs alien to their taste or lifestyle.

This paper addresses placemaking, not prescriptions to reverse youthful avoidance of physical space. Perhaps, however, contributing to the “accessibility” of places in the minds of youth is a perceived variety of options for “presence.” Inviting diversity allows expressing different, even conflicting views, which both benefits and builds on myriad overlapping communities.¹²⁰ As Marilyn Taylor asserts, from diverse activities, confidence grows to engage more widely and to find common ground with others.¹²¹ Second, community activity proves to be particularly successful when participants receive the means to improve their own spatial environment.¹²² In any event, the piazza

¹¹⁷ See BOYD, *supra* note 106 at 18–19.

¹¹⁸ *Id.* Boyd further notes that many American teens have limited geographic freedom, less free time (being heavily “scheduled” by others) and more rules than in prior generations. See *id.* at 21. As a result, teens must meet in one another’s homes and less frequently today in malls (themselves diminishing in number and quality), as they have far fewer places to be together in public, see *id.*, and some such spaces are off-limits to youth as a result of parental authority or private ownership, see *id.* at 87, 103–04, 202–03. In the planning realm, this is quite ironic since typically young people are the most frequent users of informal open spaces in urban neighborhoods. See Samuel F. Dennis, Jr., *Prospects for Qualitative GIS at the Intersection of Youth Development and Participatory Urban Planning*, 38 ENV’T & PLAN. A 2039, 2039 (2006).

¹¹⁹ See PALFREY & GASSER, *supra* note 8, at 201–02.

¹²⁰ See generally, MARILYN TAYLOR, PUBLIC POLICY IN THE COMMUNITY 49, 108–09, 197 (2d ed. 2011).

¹²¹ *Id.* at 245–46; see also BOYD, *supra* note 106, at 205 (teens seek out broader engagement). See generally Anastasia Loukaitou-Sideris, *Children’s Common Grounds: A Study of Intergroup Relations Among Children in Public Settings*, 69 J. AM. PLAN. ASS’N 130 (2003).

¹²² See Nele Aernouts & Michael Ryckewaert, *Reconceptualizing the “Publicness” of Public Housing: The Case of Brussels*, 3 SOC. INCLUSION 17, 19 (2015),

should invite a community to come together in a more efficient way than during America's historic socio-economic segregation of neighborhoods.¹²³ "Efficient" coming together results (among other means) from committed attachment to technology blurring the once well-defined lines separating work, socialization, and individual leisure.¹²⁴ The recent history of placemaking reveals a trend toward technology integration—resonating with youth engaged in online spaces and comfortable with the tools of their creators. How, consequently, will these younger technology experts influence how cities will be shaped or re-formed and regulated?

V. LAITY RISING: TECHNOLOGY TOOLS' MASTERS AND THEIR PLANNING INFLUENCE

Citizenship has been whittled down to just voting and engaging passively . . . we are at a low point in how we all participate in shaping our communities. We see placemaking as a means to challenge and empower everyone to take responsibility for the world beyond their home. We found the focus on place to be an essential strategy for turning upside down the way we shape cities and the culture of governance. People have receded inside their homes and we try to help them see that the public

<https://www.cogitatiopress.com/socialinclusion/article/viewFile/63>. In a few communities such as Hammarkullen, Sweden, young students are engaging in the act of placemaking. See Jenny Stenberg & Lasse Fryk, *Urban Empowerment: Cultures of Participation and Learning*, 46 *PROCEDIA – SOC. & BEHAV. SCI.* 3284–89 (2012), <https://www.sciencedirect.com/science/article/pii/S1877042812017880>. (An open access expanded version of this paper is found at the Mistra Urban Futures URL: https://www.mistraurbanfutures.org/sites/mistraurbanfutures.org/files/urban_empowerment_culture_of_participation_and_learning_urban_empowerment_pilot_3.pdf.)

¹²³ See Robert Steuteville, *Why 'Place' Is the New American Dream*, *PLANETIZEN* (Aug. 5, 2014), <https://www.planetizen.com/node/70632>. As Ethan Kent observes, "in the best public spaces, everyone contributes to everyone else's experience," noting that healthy competition for public space renders it dynamic, while static spaces are those "privatiz[ed]" through domination by any homogenous group of people. See Irene Pedruelo, *What Makes a City Great? It's Not the Liveability but the Loveability*, *CARNEGIE COUNCIL FOR ETHICS IN INT'L AFF.* (Apr. 22, 2015), https://www.carnegiecouncil.org/publications/archive/policy_innovations/innovaors/00287. Efficiency, however, is a nuanced concept, from the perspective of some immersed in online communications, as tolerance decreases for "unnecessary communication" and time expended to explain oneself. See e.g., Nick Bilton, *Disruptions: Digital Era Redefining Etiquette*, *N.Y. TIMES* (Mar. 10, 2013 11:00 AM), <https://bits.blogs.nytimes.com/2013/03/10/etiquette-redefined-in-the-digital-age/>.

¹²⁴ See Suzan Lewis, *The Integration of Paid Work and the Rest of Life. Is Post-industrial Work the New Leisure?*, 22 *LEISURE STUD.* 343, 343, 347–48 (2003) (describing temporally and spatially "boundaryless work").

realm is one that generates shared wealth for them if they contribute to it.¹²⁵

A critical feature in mining social capital to “make place” is integrating the contributions of citizens of all ages into the exercises of needs assessment and the siting of suitable community public realm. However intuitive it seems, democracy in placemaking has not been a landmark of the American century (1916–2016) of local land use regulation. Through the 1970s and into the 1980s, local administrations felt empowered and in charge of how their cities developed, structuring development opportunities and managing service delivery.¹²⁶ Delivery of community services such as transportation, health and education, and to a lesser degree affordable housing, could be obtained from developers’ contributions through the administrative power to demand “obligations” when planning permission was given.¹²⁷ Since the 1980s, recognizing that what happens within urban areas is more complex than government controls or economic determinism can address independently, more emphasis has been placed on coalition building. Forming “partnerships, platforms and round-tables” around mutual interests, and interdependencies became “a major phenomenon in 1990s urban governance, [especially] across Europe.”¹²⁸ Such coalitions became both advocacy coalitions and discourse coalitions.¹²⁹

The work of strategy-making involves filtering ideas and information and focusing and framing notions of opportunities and trajectories while mobilizing support for strategic planning ideas. Quantities of pieces of information, analyses of causes and effects, and understandings of what has occurred and what should be valued are surrendered to the collective in these processes. Sorting processes are in no way neutral. Indeed, they involve selecting from volumes of knowledge what is strategically significant. They further involve sorting out what is considered acceptable or valid knowledge,

¹²⁵ See Pedruelo, *supra* note 123 (quoting Ethan Kent of New York’s Project for Public Spaces).

¹²⁶ See PATSY HEALEY, URBAN COMPLEXITY AND SPATIAL STRATEGIES: TOWARDS A RELATIONAL PLANNING FOR OUR TIMES 156 (2007).

¹²⁷ *Id.* at 157.

¹²⁸ *Id.* at 93, 194; see also Lucie Laurian, *Trust in Planning: Theoretical and Practical Considerations for Participatory and Deliberative Planning*, 10 PLAN. THEORY & PRAC. 369, 369–70 (2009); HERBERT KUBICEK, REPORT FOR THE CONGRESS OF LOCAL AND REGIONAL AUTHORITIES ON ELECTRONIC DEMOCRACY AND DELIBERATIVE CONSULTATION ON URBAN PROJECTS 5–6 (2007), https://www.ifib-consult.de/publikationsdateien/Creative_final.pdf.

¹²⁹ HEALEY, *supra* note 126, at 17, 193. See generally PAUL A. SABATIER & HANK C. JENKINS-SMITH, EDS., POLICY CHANGE AND LEARNING: AN ADVOCACY COALITION APPROACH 120 (1993).

evident in stated contrasts between the knowledge of “experts” and that of “everyday citizens.”¹³⁰

The dominant tradition of Western science emphasizes the search for laws governing relations among phenomena to understand cause-effect relationships. From these relationships, policy theories and techniques like project development impact-assessment can be derived. Identifying correspondence between objective, material reality “out there” and its scientific representation has been the traditional realm of trained experts like city planners, skilled in producing knowledge historically accepted as being more valid than lay knowledge.¹³¹ This primary expert knowledge is increasingly challenged by studies of social production of scientific knowledge and by interpretive policy analysts, suggesting the distinction between “expert” and “lay” knowledge is much less pronounced than experts and elites assert.¹³²

In land use regulation, what essentially has changed, favoring “laity,” is that the public, particularly its younger members, *not* the community planning bureaucracy, is suffused with masters of technology platforms and microprocessor-driven Internet of Things-devices.¹³³ The public’s growing superior knowledge of these tools and devices implicates a forthcoming transition in dividing labor in an American society considering how public value should be created in resolving structural community problems. This shift in value-creation mandates crowdsourcing, in distinction to the realm of “pure reason” historically informed by in-field experience of professional planners,

¹³⁰ See THOMAS SOWELL, *INTELLECTUALS AND SOCIETY* 19, 26–27, 30 (2012).

¹³¹ See *id.* at 26–27. This premise has been debunked by critics like Ed Morgan, who contend simply that planning as science lacks objective criteria on which to measure one theory of planning versus another; and that such planning elements communities identify as “criteria” (and thereafter rely upon) are wholly subjective. See Morgan, *supra* note 11, at 195–96.

¹³² See FRANK FISCHER, *CITIZENS, EXPERTS AND THE ENVIRONMENT: THE POLITICS OF LOCAL KNOWLEDGE* 215 (2000) (professional analysts have no *unquestionable* knowledge advantage); *Prevailing Policies Versus New-Tailored Policies*, in *PLACEMAKING AND POLICIES FOR COMPETITIVE CITIES* 11, 12 (Sako Musterd & Zoltan Kovacs eds., 2013) (“the value of the new policy direction is hardly or not at all supported by proper analysis of the . . . local . . . economy under consideration . . . [and some policy makers] even plead for fact-free policy making.”); SOWELL, *supra* note 130, at 13–16, 26–27, 30 (it is uncertain that the kind of knowledge intellectuals and experts master is more consequential in its effects in the real world than lay knowledge).

¹³³ The Internet of Things (or IoT for short) generically refers to objects communicating with other objects in the same fashion, more or less, as how those objects communicate with their owners via the Internet. The objects, embedded with electronics, software, sensors, and network connectivity, collect and exchange data and sometimes certain instructions with each other. See Jacob Morgan, *A Simple Explanation of ‘The Internet of Things’*, *FORBES* (May 13, 2014, 12:05 AM), <https://www.forbes.com/sites/jacobmorgan/2014/05/13/simple-explanation-internet-things-that-anyone-can-understand/#7d133f11d091>.

landscape architects, and environmentalists.¹³⁴ These professionally trained elites fundamentally (with transportation planners) made decisions in the past about what placemaking environments were optimal.¹³⁵ Communities are ill-advised to dictate nodes for human yearning for community, suffused with street activation advancing sustainability, community competitiveness,¹³⁶ placemaking or any other public agenda, without plumbing the authentic agendas of masses of town dwellers.¹³⁷

In the 1990s, local governments began to accept that incorporating local knowledge and opinions into planning decision-making processes yielded results more relevant to their communities' publics, suiting their everyday reality while improving their quality of life.¹³⁸ Astute local governments today understand the significance of empowering citizens by increasing transfer of influence to community participants, and "collaborating" among stakeholders in priorities setting, planning, implementing solutions, and evaluating of those solutions.¹³⁹ Their attuned administrations understand that such collaboration schemes permit conflict resolution and development of shared visions (including common understandings of problems awaiting resolutions), an evolved alternative to inflexible government-centered policy.¹⁴⁰ Progressive governments provide the political setting in which collaborative efforts materialize.¹⁴¹ Ultimately, however, "collaboration is not a [viable] alternative to government" as an institution; partnering must be framed by those constraints and opportunities governments afford to their citizens.¹⁴²

¹³⁴ See *Shared Spatial Regulating*, *supra* note 4, at 163, nn.259 & 262.

¹³⁵ Merely because certain beliefs may be lacking in logic or evidence does not equate the beliefs with random irrationalities, as patterns of beliefs may generate their own logic. SOWELL, *supra* note 130, at 26–28.

¹³⁶ See Allen J. Scott, *Foreword* to Sako Musterd & Zoltan Kovacs, *supra* note 132, at xvi ("there can be no boilerplate policy approaches to . . . development;" "policies . . . need to be tailored to local conditions"); see *Animating Performance Zoning*, *supra* note 7, at 674–76.

¹³⁷ Cf. THOMAS DOLAN, *LIVE-WORK PLANNING AND DESIGN: ZERO-COMMUTE HOUSING* xii, 63, 75 (2012) (explaining the utility of a flexhouse). See generally MARK SHEPPARD, *ESSENTIALS OF URBAN DESIGN* (2015) (describing the standards to follow in development planning).

¹³⁸ See Tal Berman, *Public Participation as an Instrument for Incorporating Local Knowledge into Planning Processes*, STATE AUSTL. CITIES CONF. 2015, 2–3 (Dec. 2015), <https://www.researchgate.net/publication/286814389>. See generally R. Kingston et al., *Web-Based Public Participation Geographical Information Systems: An Aid to Local Environmental Decision-Making*, 24 COMPUTERS, ENV'T & URB. STUD. 109, 109 (2000).

¹³⁹ See Tomas M. Koontz, *Collaboration for Sustainability? A Framework for Analyzing Government Impacts in Collaborative-Environmental Management*, 2 SUSTAINABILITY: SCI., PRACT. & POL'Y 15, 15 (2006).

¹⁴⁰ See *id.* at 15–16.

¹⁴¹ See *id.* at 16.

¹⁴² See *id.* at 22.

Technology, primarily focused on public participation geographic information systems, thus far has enabled fledgling participatory activities and the growing influence of land-use grassroots organization in the planning realm.¹⁴³ The interface between technology and citizen participation in placemaking is the leading edge of democratized spatial planning in developed nations with robust Internet service.¹⁴⁴ The next section considers technological vehicles driving increased populist placemaking.

VI. PLACEMAKING CORNERSTONES

Today, the term “placemaking” is used in many settings—not just by citizens and organizations committed to grassroots

¹⁴³ See Sarah Niles & Susan Hanson, *A New Era of Accessibility*, 15 URISA J. 35, 35 (2003).

¹⁴⁴ Of course, the biggest barrier to the use of ubiquitous web-based participatory tools is the “digital divide,” limiting participation by many citizens. See Claus Rinner & Michelle Bird, *Evaluating Community Engagement Through Argumentation Maps – A Public Participation GIS Case Study*, 36 ENV'T. & PLAN. B: PLAN. & DESIGN 588, 589 (2009) [hereinafter Rinner & Bird], <https://pdfs.semanticscholar.org/ae3e/dd38d41df55b69c12b4b869617dac55e4da5.pdf>. Prof. Fennell also makes this point in her paper, *supra* note 2, at 407; however, I am unconvinced this divide is a consequential chasm. Fennell’s observation ignores the rise of affordable technology. Moto G series phones by Motorola have set a standard for affordable phones in developed countries. See Jeff Dunn, *The 9 Best Affordable Smart Phones You Can Buy*, BUS. INSIDER, (Apr. 9, 2017, 10:00 AM), <http://www.businessinsider.com/best-cheap-phones-buying-guide-oneplus-moto-g-2017-4>. Evidence of the consequence of affordability includes the fact that as of December, 2016, 77% of American adults own a smartphone. See *Mobile Fact Sheet*, PEW RES. CTR. INTERNET & TECH. (Feb. 5, 2018), <http://www.pewinternet.org/fact-sheet/mobile/>. Connectivity to the Internet sometimes is tenuous, but many public places exist today with connectivity (for instance, public libraries, youth clubs and co-working spaces); indeed, one option for future public places-made is incorporating the work of community technology centers, those nonprofit, locally-based organizations that provide IT to groups have little access to it in other ways. See STEPHEN DAVIES ET AL., *COMMUNITY TECHNOLOGY CENTERS AS CATALYSTS FOR COMMUNITY CHANGE: A REPORT TO THE FORD FOUNDATION* (Jan. 2003), www.pps.org/pdf/CTCs.pdf. The FCC’s National Broadband Plan noted that perhaps 100 million Americans lack broadband access *at home*, but national broadband availability includes mobile access as well as home access—and smartphone use relies on mobile access. See *Connecting America: The National Broadband Plan*, FED. COMM. COMMISSION (Mar. 2010), <https://transition.fcc.gov/national-broadband-plan/national-broadband-plan.pdf>. Home accessibility may not be paramount to equity, since by the time this paper is published, more American users will access the Internet wirelessly by a mobile device than from a wired connection. See Christina Bonnington, *In Less Than Two Years, A Smartphone Could Be Your Only Computer*, WIRED (Feb. 10, 2015, 3:42 AM) <http://www.wired.com/2015/02/smartphone-only-computer/>. Ultimately, the persons least connected—the homebound or institutionalized and the elderly—today also are those least likely personally engaged in placemaking or the places created thereafter. As Prof. Fennell observes, perhaps the bigger worry is that privileged majority interests will dominate the discourse due to their being deeply conversant in the “context of direct democracy,” by which I infer their comfort with policymaking. See Fennell, *supra* note 2, at 407.

community improvement—but also by planners and developers who use it as a “brand” to imply authenticity and quality, even if their projects don’t always live up to that promise. But using “placemaking” in reference to a process that isn’t really rooted in public participation dilutes its potential value.

. . . .
A great public space cannot be measured by its physical attributes alone; it must also serve people as a vital community resource in which function always trumps form. When people of all ages, abilities, and socio-economic backgrounds can not only access and enjoy a place, but also play a key role in its identity, creation, and maintenance, *that* is when we see genuine placemaking in action.

Placemaking pays close attention to the myriad ways in which the physical, social, ecological, cultural, and even spiritual qualities of a place are intimately intertwined¹⁴⁵

This Part attempts to identify significant community building blocks for advancing placemaking. First, I address the advantages of direct citizen engagement (and encouraging tapping the technology expertise of youth) in spatial planning. Then, in Sections VI.B and VI.C below, I indicate the need to value and enable the ongoing efforts of citizen planners and suggest several bureaucratic opportunities through which communities can further such citizen work.

A. *Recruiting Citizen Technologists of Diverse Talents and Ages to Optimize Inputs and Improve Resulting Placemaking Decisions*

The power dynamic between citizens and their communities’ administrations has been distorted since the creation of the Republic, moving quickly from the notion of elected representation of the voters to the notion of governance without authentic consultation. Youth particularly feel powerless, as they are told what to believe and how to act since their first sentience. Parents decide for their children from the common belief that decision-making is the responsibility and prerogative of their elders.¹⁴⁶ Youths, growing up in a powerless family and community realm, feel excluded and, finally introduced

¹⁴⁵ *What is Placemaking?*, PROJECT FOR PUB. SPACES http://www.pps.org/reference/what_is_placemaking/ (last visited Nov. 26, 2018).

¹⁴⁶ See Dawn Jourdan, *Standing on Their Own: The Parallel Rights of Young People to Participate in Planning Processes and Defend Those Rights*, 11 SUSTAINABLE DEV. L. & POL’Y 41, 41 (Fall 2010), <http://digitalcommons.wcl.american.edu/sdlp/vol11/iss1/15>. Thus, in addition to social equity, Jourdan posits the concept of intergenerational equity. See *id.*

into a decision-making process, distrust the process itself because they feel it is rigged against their interests. Competency to plan community form in an environment of paternalism is challenging.¹⁴⁷ The desire of youth to break free from such paternalism was well-illustrated in the 2016 primary season, observed in youthful devotion to Senator Bernie Sanders' campaign and ideology of disenfranchisement. In Sanders' campaign, youth unleashed the power of digital media for communication management and public relations advocacy.¹⁴⁸ Their reaction is not unlike that of those adult citizens distrusting a zoning process, sensing their marginalization when elite leaders and experts participate in scoping and problem-solving exercises leading to apparently prescribed outcomes.¹⁴⁹ But unlike older adults in the main, youth master the very technological tools enabling robust participation in placemaking initiatives.¹⁵⁰ Youth are precisely those persons whose expertise as "citizen technologists"¹⁵¹ requires harnessing if optimal placemaking decision-making genuinely is the goal of sophisticated communities.

¹⁴⁷ See *id.* at 43–44.

¹⁴⁸ See Alissa Sommerfeldt, *The Tipping Point: A Case Study of the Bernie Sanders Movement and Hashtag Activism in the Postmodern Public Relations Perspective*, 1 STEEPLECHASE (2017), <http://digitalcommons.murraystate.edu/steeplechase/vol1/iss1/6>; see also Micah L. Sifry, *How the Sanders Campaign Is Reinventing the Use of Tech in Politics*, NATION (Mar. 14, 2016), <https://www.thenation.com/article/how-the-sanders-campaign-is-reinventing-the-use-of-tech-in-politics/>.

¹⁴⁹ See Barbara L. Bezdek, *Citizen Engagement in the Shrinking City: Toward Development Justice in an Era of Growing Inequality*, XXXIII ST. L. U. PUB. L. REV. 3, 16, 43–47 (2013); Laurian, *supra* note 128, at 369; see also Jerry L. Anderson et al., *A Study of American Zoning Board Composition and Public Attitudes Toward Zoning Issues*, 40 URB. L. 689, 726 (2008) (zoning boards are disproportionately populated by professional occupations, and many members have some direct or indirect interest in the development process).

¹⁵⁰ See *Animating Performance Zoning*, *supra* note 7, at 680–82.

¹⁵¹ "Citizen planners" is a term used to identify everyday persons engaged in planning processes (so-called "participatory planning") at a variety of inputs levels and directions. See, e.g., *Prologue* to CITIZEN PLANNERS: SHAPING COMMUNITIES WITH SPATIAL TOOLS (Bernard J. Niemann, Jr. et al. eds., 2011). Philadelphia has a "Citizen Planning Institute" attached to that city's Planning Commission. See PHILA. CITIZENS PLANNING INST., <https://citizensplanninginstitute.org/>. Fort Collins, Colorado, has a non-profit group of citizens that think about and act on issues surrounding sustainability and food provision. See CITIZEN PLANNERS, <http://www.citizenplanners.org/>. More aggressive application of citizen planning roles includes myriad forms of collective action and social movements undertaken by citizen planners. See, e.g., Victoria A. Beard, *Citizen Planners: From Self-Help to Political Transformation*, in THE OXFORD HANDBOOK OF URBAN PLANNING 706 (Randall Crane & Rachel Weber, eds., 2012). I deliberately selected the term "citizen technologists" here, recognizing that technology expertise is a key ingredient in citizen participation. Engaging citizens requires communities at some level to hand over the car keys, allowing the public to make use of geospatial tools to become better informed and therefore effectively to engage in land-use planning, design, and management processes.

Public engagement processes can be lengthy and costly. In a great many communities, gradual shifts in regulatory decision-making processes will be received by bureaucracies as jolting, however slow their progress.¹⁵² Youth and many adults candidly lack essential skills for public engagement. Where Natives are concerned, some are inarticulate, some genuinely lack life experience, and others are cowed, accustomed to having their opinions disregarded. Some individuals of every age wear blinders, while others build opposition grounded in inaccuracies, like 21st century politicians on the stump (or holding office). Adding to these challenges, placemaking decisions involve technical and legal understandings exceeding the everyday knowledge of most citizens—a condition likely to diminish in magnitude but not disappear without intentional community-sponsored instruction.¹⁵³

In fostering engagement, there is more at stake for society than a single place made. Americans need civics lessons that surmount how to express self-interest; they need to learn, through experience, how people work together effectively in community.¹⁵⁴ Meaningful engagement requires community commitment to having public participants learn new concepts, gain wider understanding of the workings of local government, and develop skills to critically evaluate claims.¹⁵⁵ The benefits of increased public participation are

¹⁵² “Successful diffusion and adoption of any technology is always fraught with challenges. However, there is a need to accelerate and to fully embrace and embed them into day-to-day operations resulting in new opportunities for innovative engagement and outcomes.” *Prologue*, *supra* note 151. Sharing the car keys is frightening on many levels; one is a sensed surrendering of authority, an uncomfortable ego-adjustment.

¹⁵³ Placemaking will remain subject to mediated compromises, but everyday citizens cannot (or, perhaps, will never) know every political consideration implicated that informs their communities’ limitations to compromising. Such considerations include, for example, ongoing obligations of local governments under regional compacts for transportation planning and obligations to States which charter their very existences and which fund portions of their budgets. To some degree, all regulatory work and scientific conclusions informing placemaking are politicized and will remain so. *See* MAHYAR ARAFI, *DECONSTRUCTING PLACEMAKING: NEEDS, OPPORTUNITIES, AND ASSETS*, 4, 11–13, 20–21 (2014); *cf.* THOMAS O. MCGARITY & WENDY E. WAGNER, *BENDING SCIENCE: HOW SPECIAL INTERESTS CORRUPT PUBLIC HEALTH RESEARCH* (1994); Sidney A. Shapiro, “*Political*” *Science: Regulatory Science After the Bush Administration*, 4 *DUKE J. CONST. L. & PUB. POL’Y* 31, 33 (2009); Wendy E. Wagner, *The Science Charade in Toxic Risk Regulation*, 95 *COLUM. L. REV.* 1613, 1640 (1995).

¹⁵⁴ Fennell observes that technology that is too democratic may favor “majority interests,” referring to those familiar with the mechanics and strategies of policymaking that, animated by selfish interest, might enable “preference aggregation without deliberation, accountability, or reason-giving.” Fennell, *supra* note 2, at 407.

¹⁵⁵ Unsurprisingly, these are goals for training youth to engage in community service, such as through school-based service learning. *See, e.g.*, Linda Camino & Shepherd Zeldin, *From Periphery to Center: Pathways for Youth Civic Engagement in the Day-To-Day Life of Communities*, 6 *APPLIED DEV. SCI.* 213, 217 (2002) (school-based service learning is an

well known, when new voices (like those of Natives) often unheard are included.¹⁵⁶ better localized decisions result due to enhanced information supporting land use implementation, achieving more efficient development permitting, and building social capital.¹⁵⁷ Planners and bureaucrats bear an added community responsibility for getting public participation right, so that *local* knowledge both guides, and is guided by, professional expertise and political perspectives.¹⁵⁸ That public engagement should be animated by government processes and tools facilitating not just vast data generation but deep exposure to all varieties of local knowledge, delivered to community members during a protracted period of stakeholder discourse.¹⁵⁹

B. Starting with Basics: Location Applications and 3D Imagery Tools for Placemaking

The Internet is the stakeholders' ally of mixed reputation in transitioning from the dominance of "expert opinion" to an era of community-derived placemaking. On the positive side, social media compensates for lack of group discipline. Today, having eliminated coordination costs, loosely-organized crowds among the networked population can undertake coordinated action using sophisticated digital platforms. Prior analogs of such platforms historically would have been possessed by those few formal organizations that could afford them.¹⁶⁰ The Internet enables media *production* as well as media content consumption, enabling broad expression of views in conversations incorporating potentially thousands of conflicting inputs.¹⁶¹ On the negative

instructional method that combines individual learning and community service, including "critical reflection" to promote student understanding and skills development).

¹⁵⁶ See Dennis, *supra* note 118, at 2050 (noting that youth civic participation adds "their silenced voices to collective deliberations"; and that qualitative GIS, imbedded in "a dynamic interactive system of representations," promises a path by which to connect local youth concerns to broader stakeholder groups).

¹⁵⁷ See Berman, *supra* note 138, at 4. *Social capital*, so-called, is not some touchy-feely crypto-currency; the resulting informal ties generating trust and meaningful association are instrumental to community local culture and market economy growth, generating opportunity and political power among engaged local constituencies. See KATZ & NOWAK, *supra* note 32, at 165.

¹⁵⁸ See Berman, *supra* note 138, at 9; Camino & Zeldin, *supra* note 155, at 213 (research suggests that governments and communities work better in places having social and inter-organizational networks, enhancing collective decision-making and recreation, dispersing information and decision-making broadly, and offering robust pathways for civic engagement); Brabham, *supra* note 3, at 244–45.

¹⁵⁹ See Berman, *supra* note 138, at 9.

¹⁶⁰ See Clay Shirky, *The Political Power of Social Media: Technology, the Public Sphere and Political Change*, FOREIGN AFF. (Jan./Feb. 2011), <https://www.foreignaffairs.com/articles/2010-12-20/political-power-social-media>.

¹⁶¹ See *id.*

side, social media promotes a herd mentality, allowing points of view expressed by peers, however bereft they are of virtue or logic, to hold sway in little or no time,¹⁶² with few or no facts to afford context.

Since new digital media increases public access to information, speech, and assembly, public bodies are more accountable to explain disconnects between the viewpoints of elected and appointed representatives and those of their constituents.¹⁶³ These pressures have caused more authoritarian governments to explore means to monitor or co-opt social media tools for their propagandists' ends, whether or not these ends are transparent.¹⁶⁴ But virtuous local governments ideally will create platforms to enhance citizen services and undergird social innovation. These administrations provide resources, set rules, and mediate disputes while allowing citizens, non-profits, and the private sector to share in the heavy-lifting of policy formation and, in support, producing and analyzing expert knowledge.

Mobile devices now are commonly used tools to conduct observational field surveys and to collect other anecdotal data regarding movement and volumes of communications, among other matters.¹⁶⁵ Volunteered geographic information, or VGI, engages large numbers of private citizens, whether technologically astute or not, in creating geographic information.¹⁶⁶ This information augments from many individual sources those government datasets collected by local government professionals.¹⁶⁷ The augmentation starts with tracking the public's daily interactions and movements through distributed

¹⁶² See Apoorva Mandavilli, *Trial By Twitter*, 469 NATURE 286 (2011) (academics and scholars equally guilty as lay persons of mob mentality); Keith Hampton et al., *Social Media and the 'Spiral of Silence'*, PEW RES. CTR. (Aug. 26, 2014), <http://www.pewinternet.org/2014/08/26/social-media-and-the-spiral-of-silence/>.

¹⁶³ See Mandavilli, *supra* note 162; Hampton et al., *supra* note 162.

¹⁶⁴ See Mandavilli, *supra* note 162; Hampton et al., *supra* note 162; Ignas Kalpokas, *The Many Faces of Social Media: Challenging the Social Media Democracy Nexus*, BALLOTS & BULLETS (June 16, 2015), <http://nottspolitics.org/2015/06/16/the-many-faces-of-social-media-challenging-the-social-media/>.

¹⁶⁵ See *Progress in Data and Technology*, in STRENGTHENING COMMUNITIES WITH NEIGHBORHOOD DATA, *supra* note 78, at 96–97. Twitter itself lends data about social patterns allowing researchers to judge destinations that are popular at particular times. See Edward L. Glaeser et al., *Big Data and Big Cities: The Promises and Limitations of Improved Measures of Urban Life*, 56 ECON. INQUIRY 114, 118 (2018); Fabian Neuhaus, *The Use of Social Media for Urban Planning: Virtual Urban Landscapes Created Using Twitter Data*, in TECHNOLOGIES FOR URBAN AND SPATIAL PLANNING: VIRTUAL CITIES AND TERRITORIES 113, 116–21 (Nuno N. Pinto et al. eds., 2014) [hereinafter PINTO]. *But see* Batty, in PINTO, *supra*, at 7 (extracting the social structure of the city from Twitter data is fanciful, although interesting, as only a small percentage of Twitter users activated their positioning software).

¹⁶⁶ Matthew Tenney & Renee Sieber, *Data-Driven Participation: Algorithms, Cities, Citizens and Corporate Control*, 1 URB. PLAN. 101, 101 (2016).

¹⁶⁷ See *id.*

sensors like those imbedded in smart phone technology.¹⁶⁸ The belief is that VGI harnesses massive datasets representing the inputs of entire populations, eliminating putative sampling bias of conventional surveys that seem to marginalize minority stakeholders in community decision-making.¹⁶⁹ In addition to overcoming biases, some argue that online-rating platforms like Yelp are more current and geographically finer, portraying a better picture of current conditions, than are official government statistics.¹⁷⁰ Once coded through digital services and then sorted by an array of algorithmic treatments, this harvested data can be digested and integrated into planning schemes. Here are some new “civic tools” usable by youth among others that could, in their current or future configurations (assuming their survival in the tidal wave of innovations), be highly useful in assessing the virtue of certain physical realms in community composition of place.

1. Waze

Waze creates crowd-sourced traffic data easily accessible to each individual user, informing her through inputs from others concerning traffic patterns, the status of accidents, gas prices, or less-impeded routes by clicking on an avatar found on a community shared map. Avatars virtually represent a Waze user, affording anonymity while sharing real-time data to other anonymous users. These avatars are projected on a map viewable by those within a given radius. Way-points identify certain areas as “workplace,” “home,” and “favorite places,” enabling the user to quickly navigate to that area. While the user is driving, the app sits idle and gives detailed reports about location, speed, and direction, displaying these numbers onto the larger map that other users view. Participants determine which avatar, located a few minutes “ahead” of the user, best will inform a user of traffic status nearby the user’s intended destination. The app’s inquirer may learn by contacting the avatar whether congestion persists, informing a choice to stay her course in

¹⁶⁸ See *id.* at 103. Citizens apparently are eager to use social media tools to engage with planners. See Reinout Kleinhans et al., *Using Social Media and Mobile Technologies to Foster Engagement and Self-Organization in Participatory Urban Planning and Neighbourhood Governance*, 30 PLAN. PRAC. & RES. 237, 239 (2015); Wayne Williamson & Bruno Parolin, *Web 2.0 and Social Media Growth in Planning Practice: A Longitudinal Study*, 28 PLAN. PRAC. & RES. 544 (2013); Wayne Williamson & Bruno Parolin, *Review of Web Based Communications for Town Planning in Local Government*, 19 J. URB. TECH. 43 (2012).

¹⁶⁹ See Tenney & Sieber, *supra* note 166, at 105. The authors claim that application of algorithmic procedures serves as a “corrective lens” to cure bias. See *id.* at 109.

¹⁷⁰ See Edward L. Glaeser et al., *Nowcasting Gentrification: Using Yelp Data to Quantify Neighborhood Change*, HARV. BUS. SCH. 1, 21 (2018), https://www.hbs.edu/faculty/Publication%20Files/18-077_a0e9e3c7-eceb-4685-8d72-21e0f518b3f3.pdf.

heavier traffic or determine whether (and which) other routes will be more efficient in avoiding congestion to reach the destination sooner. Were this mechanism expandable for use by an entire city's population, Waze's information might change the way we travel and aid understanding how destinations and routes inform placemaking.

Were Waze's collected data stored, analyzed, and compiled, stakeholders could map many persons' daily activities, extrapolating when and where masses of individuals will congregate. This type of detailed data is instrumental in land planning if generated by a significant-enough number of residents in a particular city. Understanding traveled distances projects a general radius where an individual's daily activities are focused, but communities seem unprepared to incorporate this data into transportation planner Intelligent Transportation Systems (or ITS for short). Traditional ITS is focused on two fundamental goals—increasing throughput and improving safety—addressing actual vehicular movement (rather than considering mobility *options*).¹⁷¹ Broader transportation-planning goals such as sustainability and quality of life typically are not part of a community's ITS agenda,¹⁷² which assumes that faster arrival at one's destination is the critical indicator of higher quality of life.

2. Carpooling Apps

Zimride and Lyft shuttle-style apps that increase grouping of people into passenger vehicles¹⁷³ promote freedom from dependence on parking stalls. That in turn supports densification of development because vast seas of asphalt need not support new development projects when vehicles are filled with passengers who otherwise would travel one to a vehicle. This philosophy of micro-transit service to supplement mass transit seemingly increases sustainability to a degree but promotes supplementation. Unless community-sponsored transit services decrease their levels of service, areas of service, or both in response to micro-transit via cars (because bus passengers occupy less

¹⁷¹ See Anthony M. Townsend, *Re-Programming Mobility: How the Tech Industry Is Driving Us Towards A Crisis in Transportation Planning*, NEW CITIES FOUND. (Feb. 2014), <https://newcities.org/wp-content/uploads/PDF/Research/Cities-on-the-move/Re-programming-mobility-how-the-tech-industry-is-driving-us-towards-a-crisis-in-transportation-planning-Anthony-Townsend-New-Cities-Foundation-Cities-on-the-Move.pdf>.

¹⁷² See *id.*

¹⁷³ See Alison Griswold, *Lyft Explains Why Shuttle, its Most Bus-like Service, is Not, in Fact, a Bus*, QUARTZ (July 13, 2017), <https://qz.com/1027662/lyft-explains-why-shuttle-its-most-bus-like-service-is-not-in-fact-a-bus/> (discussing variety of services driven by smartphones and GPS to match people with vehicles on different service delivery types to pull people away from individual vehicle ownership and single occupancy trips).

space moving through city byways than do persons in passenger vehicles¹⁷⁴), “supplementing” taxpayer-supported services means that more vehicles share the road, if not parking areas. The increase in numbers of vehicles along the same pathways likely increases the travel time of pathway users.

3. Individual Movement Tracking Apps and Augmented Reality

Opportunities abound for the use of diverse social media sites to determine where people spend a majority of their time, whether or not voluntarily. Livehoods, developed by Justin Cranshaw and colleagues at Carnegie Mellon University’s School of Computer Science, uses social media data derived from tweets and Foursquare “check ins” to reveal where users of such media spend time in eight cities.¹⁷⁵ Applications that deal with tracking exercise routines, such as Runkeeper, Map My Ride (for cyclists), and iFit or S Health map out each user’s workout with time checkpoints, total distance travelled, and calories burned on route. With this information gathered, land planners would be able to determine whether areas specific for these activities (such as parks, repurposed rail beds, and paved trails) are optimally visited and utilized as designed. If they are not desirable or frequented places, that data would be helpful in determining why workouts occur elsewhere. Such demand modeling discloses what physical locations are appealing to persons of all ages and why mobility preferences reside where they do.

MileIQ, intended for use by small business owners, tracks mileage in order to receive a tax deduction for business expenses based on distances travelled. Like Waze, it runs in the background and counts the miles driven per day, calculating the dollar amount saved for taxes. MileIQ data on tracking distances traveled may aid shortening travel distances. Knowing how many small businesses are operating in a general area and how much (and to what destinations) company employees move around the city offering services allows planners to calculate how to shorten trip distances and, therefore, waiting in gridlocked traffic formations.

¹⁷⁴ David Bannister, *Innovation in Mobility: Combining Vision, Technology and Behavioural Change*, A PLANET FOR LIFE (2014), <http://regardssurlaterre.com/en/innovation-mobility-combining-vision-technology-and-behavioural-change>.

¹⁷⁵ See Justin Cranshaw et al., *The Livehoods Project: Utilizing Social Media to Understand the Dynamics of a City*, PROC. SIXTH INT’L AAAI CONF. BLOGS & SOCIAL MEDIA 58 (2012) (underlying hypothesis of project is that the “character” of an urban area is defined not just by the types of places found there, but also by the people that choose to make that area part of their daily life; the clusters are denominated “Livehoods,” denoting dynamic nature of activity patterns in lives of inhabitants); Microsoft Research, *The Livehoods Project: Utilizing Social Media to Understand the Dynamics of a City*, YOUTUBE (July 28, 2016), https://www.youtube.com/watch?v=Wv19ap_uiwM; LIVEHOODS, www.livehoods.org (last visited Nov. 9, 2018).

Collecting data regarding tourists and other visitors, Airbnb, Trivago, TripAdvisor, and Expedia amass a large amount of data useful to planners during times of peak tourist traffic. These apps receive thousands of bookings per week, allowing planners to see how many people arrive from out of town and what events are “consumed,” generating raw data on how facilities handle large amounts of foot traffic and how to move visitors to and from preferred events venues most efficiently. Likewise, social setting review apps featuring pages rating places for eating, housing, and entertainment, if their data were shareable, may expose where people wish to go and why choices were made, ascertaining, perhaps, whether elements of place affected decisions of visitors.

Wearable devices, controllable merely by eye or other movements, have enormous potential for information-gathering. For instance, Innovega manufactures a contact lens allowing for both “windowed” and full-immersion pictures, projecting a large computer display in the foreground while the viewer simultaneously observes real objects at normal distances.¹⁷⁶ Tourists can create, using a smartwatch or advanced ophthalmic lenses, a complete itinerary of their just-finished trip, including every stop made, places stayed, where they ate and purchased fuel, attractions visited, and their arrival and departure times.¹⁷⁷ If every citizen having such a wearable device is viewed as a “tourist in her own town,” data extracted through these devices can tell us much about their preferences for physical place, independent of wearers’ “commentary” in the form of edited inputs. Remarkably, since wearable devices to come will track physical and mental states,¹⁷⁸ by allowing third parties to “mine” the resulting data, administrators may develop a far greater community understanding of visitor attraction to places-made.

4. Three-Dimensional Printing and its Building Blocks

Ultimately, whatever community platforms for placemaking modeling are adopted, the chief attribute of each platform must be transparency.¹⁷⁹ The

¹⁷⁶ See Frank Tobe, *Eyeing the Future of Ophthalmic Lenses*, DESIGN WORLD (Feb. 9, 2017), <http://www.designworldonline.com/eyeing-future-ophthalmic-lenses/#>.

¹⁷⁷ See RUIZHI CHEN & ROBERT GUINNESS, GEOSPATIAL COMPUTING IN MOBILE DEVICES 202–03 (2014).

¹⁷⁸ See Sinjini Mitra, *Biometric Sensors and How They Work*, in HANDBOOK OF SENSOR NETWORKING: ADVANCED TECHNOLOGIES AND APPLICATIONS 8-13-4 (John R. Vacca ed., 2015); Stephanie Rosenbloom, *What Does the Apple Watch Mean for Travelers?*, N.Y. TIMES TRAVEL (Mar. 9, 2015, 1:52 PM), http://www.nytimes.com/2014/09/10/travel/for-travelers-how-smart-is-the-smartwatch.html?_r=0.

¹⁷⁹ See TOWNSEND, *supra* note 45, at 296. Townsend advocates placing planning models on public display, to invite scrutiny, to educate the public about its tools and methods for understanding spatial planning, and to increase confidence in planning platforms used by communities. *See id.* at 296–97.

challenge for transparency is dealing with the statistical quagmire extruded from “big data” sets. Who will understand that digested and analyzed data? It is quite unclear whether the average citizen can absorb even a digested version of reams of device measurements and other data, especially for “visual” learners.¹⁸⁰ Additionally, each such model must be tailored to the community’s unique characteristics and culture, avoiding too much “borrowing” from other places or succumbing to standardization around a single tool. Such replication will lead to the generic design of places.¹⁸¹ For the visually-oriented, modeling with 3D-printing applications enables participation in community discussions of placemaking. Scanned data can be transformed into software programs producing in three dimensions (via either paper or solid nylon laid down in layers) the multidimensional or even “solid” output of design decisions.¹⁸² All these lay-citizen-oriented tools have broad civic applications, if properly understood and applied. Their outputs, curated by everyday citizens, can be

¹⁸⁰ See Frank Wilczek, *How Visionaries in Visualization Moved Science Forward*, WALL STREET J. (May 6, 2016, 11:38 AM), <http://www.wsj.com/articles/how-visionaries-in-visualization-moved-science-forward-1462549112> (noting that modern “big-data” collections, depending on many variables, also define structure in high-dimensional spaces, but the human brain’s visual processors did not evolve to cope with such conditions. Thus, in coping with vast and unfamiliar complexity, humans “need to tap vision’s power—and to expand the intersection of art and science.”)

¹⁸¹ See TOWNSEND, *supra* note 45, at 302.

¹⁸² See, e.g., Michael N. Widener, *Begone Euclid! Leasing Custom and Zoning Provision Engaging Retail Consumer Tastes and Technologies in Thriving Urban Centers*, 35 PACE L. REV. 834, 857–59 (2015) [hereinafter *Begone Euclid*] (describing the phenomenon of 3D printing); Yusuf Arayici, *Modeling 3D Scanned Data to Visualize the Built Environment*, PROC. NINTH INT’L CONF. INFO. VISUALISATION 509–14 (Aug. 2005); *Fast 3-D Printers Earn New Respect*, WALL STREET J. (Apr. 26, 2016) (new generation of printers will allow modeling of simulated new development with ability to test for shade (shadow) impact on surroundings and building massing); Andrew Goodwin, *Printing Cities: Part One*, YOUTUBE (May 27, 2017), <https://www.youtube.com/watch?v=qPeOlmRQXw>; Andrew Goodwin, *Printing Cities: Part Two*, YOUTUBE (Nov. 8, 2017), <https://www.youtube.com/watch?v=EQo021RbXi>; *Digital Craft: 3D Printing for Architectural Design*, ARCH. DAILY (Dec. 7, 2015), <http://www.archdaily.com/778387/digital-craft-3d-printing-for-architectural-desin>. Social networking platforms allow message densities’ conversion into virtual city landscapes to plot location, activity, and interaction. See Neuhaus, *supra* note 165, at 124–26. Such maps visualize the environment’s influence on activities and location choices made. See *id.* at 127. One visualization tool supporting land use planning is InViTo, which increases the comprehension and assessment capacity during spatial decision processes. See Stefano Pensa & Elena Masala, *InViTo: An Interactive Visualization Tool to Support Spatial Decision Processes*, in PINTO, *supra* note 165, at 135, 136, 140. The InViTo tool merges GIS technology with parametric modelling. See *id.* at 140. Parametric technology tools in building design are discussed in Widener, *supra* note 7, at 703–04 n.399–402 and accompanying text. The net effect is a model showing connections among planning elements that can be visually explained and analyzed for the relations between specific planning choices and their spatial effects, allowing serial modifications and corrections to this simulation in real time. See Pensa & Masala, *supra* at 144, 147.

instrumental in spatial planning so long as officialdom is receptive to their utility. Assuming that receptivity, Section VI.C below addresses what the public ought to receive and share, in aid of these efforts, from and with anointed managers of spatial regulation institutions.

C. *Sharing Traditional Planning Bureaucratic Technology and Data Sets*

Are planning and zoning officials committed to transparency through sharing official technology dashboards and data sets with locals possessing dispersed but consequential knowledge?¹⁸³ The answer depends on local governance's realization that placemaking is not achievable without inputs from citizens identifying their preferences expressing their attachment and belonging. The conflict is manifest; perhaps the late 20th century mentality of local governments will prevail, that collecting and analyzing geospatial information must be authoritative—firmly entrenched under their administration. Or perhaps that view will subside over time. The friction between techno-savvy laity and political command and control bureaucracies¹⁸⁴ curbing mixed planning¹⁸⁵ and populist placemaking is observable in some local governments' management of GIS systems.

1. Geographical Information Systems as Problem-Solving Tools

Geographical information systems and similar spatial decision support systems (collectively "GIS") can be centerpieces of new collaborative approaches to land use policy debates, whether the collaborators are technical and scientific experts, business representatives, community groups, lay persons or environmental advocates.¹⁸⁶ The merger of Web applications and advanced

¹⁸³ See Michael Batty, *Deconstructing Smart Cities*, in PINTO, *supra* note 165, at 3–4, 8–9. An illustration of such sharing, but at the state level, is the State of New York's Geographic Information Gateway. The state Gateway includes access primarily to the State's planning and development data for the coastline and the Mohawk River Valley but does contain layered maps having municipal downtown revitalization areas of New York as points. See *Geoportal*, NEW YORK STATE, <http://opdgig.dos.ny.gov/geoportal/>.

¹⁸⁴ Jim Baumann, *Michael F. Goodchild Talks About the Role of Volunteered Geographic Information in a Postmodern GIS World*, ESRI (Dec. 2008), <http://www.esri.com/news/arcwatch/1208/goodchild-talks.html> (mentioning the contrast between so-called "assertive" methods of collecting geospatial information and "authoritative" methods).

¹⁸⁵ Mixed planning refers to the resulting merger of top-down and bottom-up planning when accessibility to the instruments of government (both GIS and political) occur. Cf. Antonio Nelson Rodrigues da Silva et al., *Smart Sensoring and Barrier Free Planning: Project Outcomes and Recent Developments*, in PINTO, *supra* note 165, at 93–95.

¹⁸⁶ See Corey Fleming, *Technology, Data and Institutional Change in Local Government*, in KINGSLEY, *supra* note 78, at 41–45; Kevin Ramsey, *GIS, Modeling and Politics: On the Tensions of Collaborative Decision Support*, 90 J. ENV'T'L. MGMT. 1972 (2009); see also Dennis, *supra*

mapping applications may change how the public contributes to the planning process. Such innovation inescapably empowers the “commons” in combating monopolizing geographic data.¹⁸⁷ It also allows planners to use platforms for multi-party online consultations among various stakeholders, including decision-making authorities, other community agencies’ and departments’ personnel and participating citizens.¹⁸⁸

Land use regulators facilitating these collaborations reach an inescapable conflict in their approaches to enabling inclusiveness via these tools.¹⁸⁹ GIS afforded by these regulators routinely serve two objectives: to support group problem-solving and to explore diverse problem understandings.¹⁹⁰ However, an objective problem-solving tool that includes only verifiable data (excluding experiential knowledge) is infrequently useful as a tool for sharing and exploring different problem understandings.¹⁹¹ The tool’s programmers must combat the tendency for a problem-solving tool requiring but *one* definition of the problem it seeks to address. Accordingly, problem-solving tools require clear definitions of what kinds of knowledge or information are admissible into the tool’s program, and what kinds are not.¹⁹² This stems from the community administration staff’s incapacity to separate their perspectives as facilitators of identifying shared understandings, and problem-solvers, on the other.¹⁹³ Undermining the deliberative process through

note 118, at 2043 (“GIS is the language of planning power. It controls what constitutes legitimate data, shapes the form of public debate, and changes the way neighborhood organizations think about community issues”).

¹⁸⁷ See AYMAN ISMAIL, FACILITATING GIS 2.0 COLLABORATIVE PLANNING TOOLS: PROSPECTS AND FRUSTRATIONS, Proc. 4th Nat’l GIS Symposium in Saudi Arabia, 2 (Damam 2009), http://www.saudigis.org/FCKFiles/File/SaudiGISArchive/4thGIS/Papers/14_AymanIsmail_KSA.pdf. Notably, however, skeptics populate the world of shared “Big Data,” asserting that much of this data is “synthetic,” being stylized “facts” due to shortcomings in how data, especially social media-based data, is collected and used. See, e.g., Batty, *supra* note 165, at 6–10 (much of the gathered data is not particularly geared to understanding urban processes better, nor oriented to planning the smart city).

¹⁸⁸ See Batty, *supra* note 165, at 7.

¹⁸⁹ See Ramsey, *supra* note 186, at 1972–74.

¹⁹⁰ *Id.* at 1972–74, 1977–78.

¹⁹¹ See *id.* at 1977.

¹⁹² *Id.*

¹⁹³ *Id.* Ramsey observes that the programmers’ supervisors, who are experienced and well-trained in land use theory, tend to marginalize elements of uncertainty in the creation of the GIS tool, acknowledging the “symbolic authority of GIS as a neutral and objective tool,” that does not allow for subjective inputs. *Id.* at 1977–78. Of course, this viewpoint is birthed from the “plan” model of land use control, premised upon the view that community decision-makers reliably will enact ordinances reflecting the expert and highly rational insights of the planning process based upon dispassionate review and analysis of data. See Stewart E. Sterk, *Structural Obstacles to*

conforming discussions to a particular understanding or disciplinary perspective slows “progress” until differences in problem *understandings* have been fully explored. Authoritarians harbor the belief that each problem’s contours are a settled matter.¹⁹⁴ Then, deliberation following discussions directed to mutual learning and building cooperation is coopted, as planning or zoning staffs and administrators choose (and incorporate in the tool) one type of “rationality” above all others.¹⁹⁵

*i. Problem Solving and Trust Building with GIS Tool
Citizen Stakeholders*

Combating these authoritarian tendencies, and thereby gaining the trust and “buy-in” of stakeholders who lack “insider access,” requires land use governance players’ adjustments of attitudes and approaches. Administrators do well to admit that decision environments (including public opinion, media perspectives, and political climates) shape the problem-space, requiring opening to broad-based participation and deliberative dialog stakeholder agreement on the *definition of the problem* itself.¹⁹⁶ Avoiding defining the problem’s scope in deference to the collaborative process means that modeling tools and deliberation processes, usually shaped by judgments and inherent biases of the model and process developers, instead should incorporate problem statements from all the stakeholders.¹⁹⁷ In short, the order of business for

Settlement of Land Use Disputes, 91 B.U. L. REV. 227, 246–47 (2011), www.bu.edu/law/journals-archive/bulr/documents/sterk.pdf.

¹⁹⁴ See Ramsey, *supra* note 186, at 1973; Michael N. Widener, *Moderating Citizen “Visioning” in Town Comprehensive Planning: Deliberative Dialog Processes*, 59 WAYNE L. REV. 29, 44 (2013) [hereinafter *Moderating Citizen Visioning*] (describing “Project Hijackers”).

¹⁹⁵ See Berman, *supra* note 138, at 2–3; Ramsey, *supra* note 186, at 1973. Ramsey contends that when spatial decision support systems have been adapted for group use, the “question” is pre-defined before collaborative processes begin, in order to facilitate data gathering and system design. See Ramsey, *supra* note 186, at 1973. This ignores the distinction between exploratory projects, where collaborators receive no pre-constructed design and more focused projects where a proposed design is offered in order to initially narrow the collaborative design effort in the name of efficiency. *Id.* at 1974. Berman notes that the rational-comprehensive approach, commonly carried out by professionals without public participation, began to be replaced by an emerging “communicative planning” approach in the 1990s. Berman, *supra* note 138; see also Dennis, *supra* note 118, at 2043 (noting that until recently “planning discourse privileges instrumental rationality over other ways of knowing, ignoring the communicative actions that make up everyday life”).

¹⁹⁶ See Ramsey, *supra* note 186, at 1974.

¹⁹⁷ See *id.* This follows from the mediation model of land use regulation first espoused by Carol M. Rose. In the mediation model, each stakeholder has input into the decision-making process, raising concerns beyond formal plan documents’ scope and accommodating interests in ways that zoning ordinances may not have been constructed to anticipate. See Carol M. Rose,

complex problem-solving must commence with collaborative problem exploration, from which will emerge a structure for advancing problem-solving collaboration.¹⁹⁸ This first-stage engagement is instrumental for land use administrators gaining the trust of the stakeholders—trust is a central element of planning practice. A community's staff is squarely positioned between public and private interests, and it must be viewed as an enabler of democratic governance through public participation in decision-making.¹⁹⁹

As to process, there are numerous recently-emerging government strategies increasing stakeholder acceptance of GIS-grounded collaborative techniques.²⁰⁰ The first curbs the conflicting roles of facilitator and interested participant by having local governments outsource facilitation role to a true “neutral.”²⁰¹ Secondly, flexible GIS applications are being developed after some level of consensus emerges in the definition of the problem to be addressed.²⁰² Indeed, aligned “camps” (self-affiliating groups of like-minded stakeholders) ought to work directly with local government GIS specialists to construct new applications representing their particular perspectives on the problem.²⁰³ Indeed, technical consultants ought to be initially introduced to applications “built” on lightweight application programming interfaces known as APIs.²⁰⁴ APIs are easy to use (often these are products of JavaScript for programming functionality, and XML and Object Notation for data transfer formats, in combination known as AJAX) freely accessible on the World Wide

Planning and Dealing: Piecemeal Land Controls as a Problem of Local Legitimacy, 71 CALIF. L. REV. 837, 874–76 (1983). Professor Rose did not subscribe to the notion that local governments were undeserving of underlying trust from their publics. *See id.* at 854–56.

¹⁹⁸ *See* Ramsey, *supra* note 186, at 1974.

¹⁹⁹ *See* Brabham, *supra* note 3, at 246; Laurian, *supra* note 128, at 375, 384–86; John Nalbandian, *Facilitating Community, Enabling Democracy: New Roles for Local Government Managers*, 59 PUB. ADMIN. REV. 187, 190–91 (1999).

²⁰⁰ One exercise illustrating this point is that of collaboratively determining the optimal location for a new public parking lot in Canmore, Alberta. *See* Yunliang Meng & Jacek Malczewski, *Web-PPGIS Usability and Public Engagement: A Case Study in Canmore, Alberta, Canada*, 22 J. URB. & REGIONAL INFO. SYSS. ASS'N 55 (2010).

²⁰¹ *See* Ramsey, *supra* note 186, at 1978; *Moderating Citizen Visioning*, *supra* note 194, at 39 n.72.

²⁰² *See* Ramsey, *supra* note 186, at 1978.

²⁰³ *See id.* at 1978; Michael N. Widener, *Bridging the Gulf: Using Mediated, Consensus-Based Regulation to Reconcile Competing Public Policy Agendas in Disaster Mitigation*, 74 ALB. L. REV. 587, 622 (2011) [hereinafter *Bridging the Gulf*].

²⁰⁴ *See* Sanders, *supra* note 78, at 122–24; Claus Rinner et al., *The Use of Web 2.0 Concepts to Support Deliberation in Spatial Decision-Making*, 30 COMPUTERS, ENV'T & URB. SYS. 386, 388 (2008).

Web, allowing programmers to use these applications like desktop programs, receiving updated content from a website.²⁰⁵

ii. *Mapping and Social Space Collaboration*

Use of API-referenced applications allows development of non-elite social space with user-generated content,²⁰⁶ with multiple actors supplying both trivial and serious information with a form of georeferencing (wikimapia.org being one instance).²⁰⁷ Indeed, an active community creates mash-ups of mapping and related data, enabling broad-based inclusiveness in this era of “GIS for everyone.”²⁰⁸ One illustration of the opportunities available is a “local knowledge map,” in which local data are linked to places as points or areas. Site administrators populate new data into the system. Links to information on a particular area can be combined with HOA statements, photographs, and news items; users can log in, locate a map, and zoom in on a location, then select a topic and perform a search.²⁰⁹ Search results are depicted as “spots” on the map and as a retrieval list of article headnotes. Clicking on spots displays what is attached to the chosen spot.²¹⁰ A “collaborative map,” in contrast, aggregates Web maps and user-generated content from participants connected with the blogging community, such as Webmapper or Google Earth.²¹¹ The map itself is created by sharing a common surface or overlays using map tiles from a third party edited by collaboration.²¹²

Another advance arising from this trend is so-called “argumentation maps,” deliberative environments for spatial decision-making.²¹³ The first such

²⁰⁵ See Rinner et al., *supra* note 204, at 390; see also Neuhaus, *supra* note 165, at 120.

²⁰⁶ Michael Goodchild uses the label “volunteered geographic information” for the local contribution of geospatial knowledge. See, e.g., Michael F. Goodchild, *Citizens as Sensors: The World of Volunteered Geography*, 69 GEOJOURNAL 211, 211 (2007).

²⁰⁷ See ISMAIL, *supra* note 187, at 2.

²⁰⁸ See Rinner & Bird, *supra* note 144, at 589. One participatory GIS website is ParticipatoryGIS, see <http://www.participatorygis.com/>.

²⁰⁹ ISMAIL, *supra* note 187, at 4.

²¹⁰ *Id.*

²¹¹ *Id.* at 6.

²¹² *Id.*

²¹³ Rinner & Bird, *supra* note 144, at 590; Christopher L. Sidlar & Claus Rinner, *Analyzing the Usability of an Argumentation Map as a Participatory Spatial Decision Support Tool*, 19 URISA J. 47–55 (2007). The Google Maps API has particularly powerful functionality here, as there is both wide familiarity with this platform and an active developer community, affording support and documentation to the collaborative endeavor. *Id.* For instance, ArgooMap, a tool based on Google Maps’ API, provides an interface many Internet users are familiar with as it provides access to rich and free geographic data. *Id.*

maps integrated a discussion forum and a simple mapping tool using Java applet open-source software.²¹⁴ Here, when a contribution was selected in the forum, geographic references were highlighted on the map, while selecting a map object highlighted discussion contributions pertaining to the object.²¹⁵ The objective was twofold: to give planners the chance to retrieve, store, and organize local knowledge; and to make the tool usable by all laypersons expressing an interest.²¹⁶ Argumentation maps today can be employed to get an overview of the status of a public debate on a Google Maps platform. Features include submitting place-based narrative and responding to those comments of others, aiding understanding of participants' spatial thinking, and navigating the network of messages coupled with geographic references.²¹⁷ Argumentation mapping models²¹⁸ for distributed, asynchronous (not in real time but permitting infinite inputs by stakeholders) discussions relating to spatial regulation are potentially powerful land planning democratizing instruments. However, communities must minimize learning barriers and complicated Web interfaces when seeking maximum public engagement in planning decision-making processes.²¹⁹

2. Drones and Mapping of the Built and Natural Environments with LiDAR

LiDAR—an acronym for light-ranging and detection—exploits sharable remote sensing imagery. LiDAR scans landscapes by projecting millions of laser beam signals and measuring the time it takes for them to be reflected back to the scanner. It can be set to register many points per square meter. The point that takes the longest time to reflect the signal registers as the lowest point in the surveyed area, while the shortest time indicates the highest point. LiDAR surveys, using low-flying light aircraft, shortly will give way to surveys made with drones or like UAVs. Soon, these unmanned small aircraft will explore ecosystems using multi-spectral cameras and sensors. Thermal imaging and infrared scanning will produce three-dimensional maps revealing aspects of the landscape invisible to the human eye. Drones can also identify

²¹⁴ Sidlar & Rinner, *supra* note 213, at 47.

²¹⁵ *Id.*

²¹⁶ *Id.* at 51.

²¹⁷ *Id.* at 53.

²¹⁸ *Id.* at 47. See also Christopher L. Sidlar & Claus Rinner, *Utility Assessment of a Map-Based Online Geo-Collaborative Tool*, 90 J. ENVTL. MGMT. 2020, 2020 (2009).

²¹⁹ Meng & Malczewski, *supra* note 200, at 57, 62 (concluding that numbers of visits, numbers of page views and interactions with other participants are impacted by improved system features, such as reducing numbers of “buttons” and numbers of clicks to navigate the site).

vegetation in remote locations without disturbing fragile habitats, for example along a riverbank or a slope prone to erosion.

This process provides minutely detailed information on the degree of slope on a land surface, information that would be almost impossible, certainly very time-consuming and therefore very expensive, to gather accurately by ground surveys. This data gathered is then processed by software using GIS. LiDAR data is used to visually judge the appropriate height and form of buildings and landscape features like trees. A set of web-based interactive tools has been developed to enable users to freely adjust the scale and mass of structures and vegetation to match the selected point cloud area, substantially improving the quality of presence and accuracy of the resulting model. Data can be processed and sold to customers as “derivatives,” for example high-resolution digital elevation models.²²⁰ But Esri’s service known as ArcGIS 10.1 allows LiDAR data to be managed, viewed, updated and shared in an industry-standard format. Although drones are federally regulated at high altitude the widespread availability of citizen owned UAVs creates the potential for robust low altitude survey data-generation if coordinated with local bureaucracies.

3. Sensed Data Collection and Other IoT Applications

Eventually, “time organized” flowing data may supplant applications (and the Internet) per se, so that each piece of data retrieved may be directed to targeted individuals and to organizations like city planners and related land use regulation bureaucracies to provide an onrushing river of data for community analysis.²²¹ This already occurs with beacon technology, in which personalization crosses boundaries of devices, melding location, environment, context and individual profiles.²²² The beacon receiver, embedded in a mobile app, enables communication from the marketer, personalized to the app user, based on where the smartphone holder is located and the personal preference data previously revealed to the marketer.²²³ In the future, the planner will separate information goals into clusters, simplifying the planning space. For

²²⁰ See *Working Directly with Lidar in Its Native Format*, ARCUSER 6 (Winter 2013), http://www.esri.com/~media/Files/Pdfs/news/arcuser/0113/new_lidar.pdf.

²²¹ See David Gelernter & Eric Freeman, *The Future of the Internet is Flow*, WALL STREET J. (Oct. 2, 2015, 10:40 AM), <http://www.wsj.com/articles/the-future-of-the-internet-is-flow-1443796858>; David Gelernter, *The End of the Web, Search, and Computer as We Know It*, WIRED (Feb. 1, 2013, 6:30 AM), <http://www.wired.com/2013/02/the-end-of-the-web-computers-and-search-as-we-know-it/>.

²²² DIAZ NESAMONEY, PERSONALIZED DIGITAL ADVERTISING: HOW DATA AND TECHNOLOGY ARE TRANSFORMING HOW WE MARKET 58 (2015).

²²³ *Id.*; H.O. Maycotte, *Beacon Technology: The Where, What, Who, How and Why*, FORBES (Sept. 1, 2015, 11:00 AM), www.forbes.com/sites/homaycotte/2015/09/01/beacon-technology-the-what-who-how-why-and-where/#6e3e1f851aaf.

each cluster, the planner generates the space of potential sensor placements corresponding to a set of information goals, selecting a minimal set of subspaces to take advantage of views achieving multiple information goals simultaneously. Sensing locations are chosen that maximize the probability of achieving each goal. But sensing locations do not have to be limited to “optimal sites.”

Open source technologies for the IoT using APIs for sensors, hardware, RDIF, M2M solutions and open source augmented reality promise a number of new smart solutions. One such initiative is a modular open source wireless sensor platform for building networks of sensors needing minimal power consumption. Wasmote is one such sensor device specifically oriented to developers. The platforms for smart sensors produced by Libelium are paired with open source hardware and characterized by their performance robustness, ease of incorporating many sensors and ability to operate over long distances.²²⁴

VII. RESHAPING SPATIAL REGULATING ELEMENTS TO ENABLE POPULIST PLACEMAKING

[T]he question is, how do you start changing the shape of institutions to embrace [change]? The real challenge of innovation today is not technological innovation, it’s institutional innovation. We have to start inventing new types of institutions that can stay in step with the information age.²²⁵

.....
[U]rban design is as much an art as it is science. It has to respond to countless local variables and idiosyncrasies.

.....
The first tenet of our new civics is that we should never default to smart technology as the solution.²²⁶

In this Part, I identify specific actions to be taken by communities seeking richer engagement in populist placemaking with citizen planners, beginning with one of the most common vehicles for volunteer input in cities—the planning commission. Then, I examine the changes needed to a cornerstone,

²²⁴ See Saroj Kar, *Internet of Things and Smart Cities: What Happens When the ‘Unconnected’ Connect*, SILICONANGLE (Jan. 7, 2015, 1:05 AM), <https://siliconangle.com/blog/2015/01/07/internet-of-things-and-smart-cities-what-happens-when-the-unconnected-connect/>.

²²⁵ MARK STEVENSON, AN OPTIMIST’S TOUR OF THE FUTURE: ONE CURIOUS MAN SETS OUT TO ANSWER “WHAT’S NEXT?” 319 (2011) (quoting John Seely Brown).

²²⁶ TOWNSEND, *supra* note 45, at 231, 285.

the General Plan, underpinning a community's authority to determine its spatial form and its governance realm.

A. *Planning Commissions' Repurposing*

Planning Commissions in America have a long history, contemplated initially in the Standard City Planning Enabling Act of 1920 (CPEA).²²⁷ Commerce Secretary Herbert Hoover, in the Foreword to the CPEA, observed the importance of a permanent planning branch in the local government, "in the form of a commission which formulates a comprehensive plan and keeps it up to date" and that "advises the legislative and executive branches of the municipality and the public" so as to promote conformance to the plan in building infrastructure while enabling private development.²²⁸

1. Commission Member Composition

In nearly every American community, Planning Commission members are appointed by members of the chief legislative body (for example, City Council members and County Supervisors)²²⁹ on generally a turn-taking or "equal patronage opportunity" basis. At one time, membership on such boards was reserved for a community's "leading citizens," chief among them white collar professionals, business owners, or executives.²³⁰ Unhappily, many of these members' appointments currently are patronage-based, whether because appointees are "favor-creditors" of the appointing official or are being groomed for higher office by some constituency. Frequently, Planning Commission memberships ("Commissioners") are among the most visible and substantively important citizen—volunteer positions. While badly-motivated appointments are not unethical absent bribery or extortion, they do not dovetail with the best interests of the community. Commissioner composition should indeed reflect

²²⁷ ADVISORY COMM. ON CITY PLANNING AND ZONING, U.S. DEP'T. OF COMMERCE, A STANDARD CITY PLANNING ENABLING ACT, TIT. I, § 2 (1928), https://planning-org-uploaded-media.s3.amazonaws.com/legacy_resources/growingsmart/pdf/CPEnabling%20Act1928.pdf.

²²⁸ *Id.* at iii. CPEA's influence is evidenced by the American Planning Association's 1999 survey of the states, discovering how many still relied on its CPEA's adopted text as its sole source of zoning enabling legislation. Suellen T. Keiner, *The Next Frontier: Land-Use Planning and Environmental Justice*, in CURRENT TRENDS AND PRACTICAL STRATEGIES IN LAND USE LAW AND ZONING 101, 104 (Patricia E. Salkin ed., 2004). The APA learned that 24 states had not updated local planning statutes since 1928, while just 11 states had substantially revised their local government land use regulation statutes. *Id.*

²²⁹ Anderson, *supra* note 149, at 689.

²³⁰ *Id.* at 691.

some measure of community diversity,²³¹ but “payback” and “inclusiveness” must yield to candidates’ potential for gaining competence, measured by whether appointee prospects possess both a vision of how the physical community will contribute to the development of social capital and translatable skills to advance that vision, while testing those of their fellow Commissioners.

Commissioner applicants should be interviewed by panels of citizens that include neighborhood activists and youth among their number.²³² Successful applicants should possess superior capacity for fact-finding and weighting arguments posed by stakeholders, including disguised selfish or narrow agendas. In this way, commission recommendations to city and county leaderships have more authority and greater utility than those generated by panels poorly focused on the work at hand.

2. Bodily Functions

The point of a Planning Commission in the 21st century touches process and substance. Its substantive task is to delve as a group through information and its interpretation to understand its community’s public interest in the land use realm. Whether addressing proposed change in the community’s General Plan, or a specific rezoning plan, a Commissioner should realize in its deliberations that:

A plan that does not enhance, or reduces, the welfare of the residents of the designated planning area, is not in the public interest, unless the plan or its accompanying documentation demonstrates compelling public policy considerations in support of its provisions

. . . .
[But] complexity makes a simple unitary public interest principle inconceivable, and its substantive application infeasible.²³³

²³¹ KATZ & NOWAK, *supra* note 32, at 14 (noting that failure of inclusiveness limits long-term economic success and degrades democracy); Anderson, *supra* note 149, at 727 (or, minimally, that competing interest groups be adequately represented on Commissions).

²³² Indeed, there is no reason to exclude youth old enough to understand the technical vocabulary of planning and zoning from Commission membership itself, an experiment working well in some communities. *See, e.g.*, Casey Green & Dan Rosenblum, *Why Have Students Serve on Planning Boards?*, PLANNERSWEB (Oct. 24, 2013), <http://plannersweb.com/2013/10/benefits-student-members-local-planning-boards/>; Kent Wyatt, *I Have to Ask You: Serving as a Planning and Zoning Commissioner*, ELGL.ORG (July 18, 2017), <http://elgl.org/i-have-to-ask-you-serving-as-a-planning-and-zoning-commissioner/>.

²³³ E. R. Alexander, *The Public Interest in Planning: From Legitimation to Substantive Plan Evaluation*, 1 PLAN. THEORY 226, 238–39 (2002),

The process task is recommending changes to the zoning ordinance to the community's legislative body of last resort. In performing these tasks, Commissioners produce all or most of the record evidence (forwarded to the legislative body for ultimate disposition) supporting the "legitimate government interest" and "substantial relation to public health, safety, morals or general welfare" criteria assuring judicial deference to legislative acts when a community's decision on a zoning matter is challenged.²³⁴ Given this unenviable charge for Commissioners, what ought the public expect from this body of sporadically gathered, volunteer "citizen planners?"

Consider first the equipment and inputs from stakeholders Commission members incorporate into the task of ascertaining the public interest. Commissioners should be authorized to: (A) form subcommittees to study proposal-driven issues and to interview specialists (in addition to community planning and development staff members) sorting complex issues in a zoning or General Plan amendment application; (B) refer for mediation by outside experts of fact- and data- specific issues threatening to convert a development proposal into a *cause celebre*; and (C) make rules limiting stakeholder lobbying for their votes on a proposal, allowing focus resolving essential conflicts underlying a zoning matter instead of being distracted by fake news, accusations of impropriety, and recitations of "parades of horrors." Distractions are energy-sapping time-wasters. Stakeholders speaking in a public hearing at length should submit their testimony in advance of the hearing in a digital format that can be uploaded for sharing with all other stakeholders, enabling Commissioners to target questions to speakers to ascertain an applications' compelling public policy considerations and to minimize repetition of speakers' testimony speech-making and related stakeholder theatrics.

http://www.knesset.gov.il/committees/heb/docs/intenvcom/OPPla300611_3.pdf. Alexander's thesis is that as the plan area increases, the affected population becomes larger and more diverse, and substantively evaluating the plan becomes more complex; inevitably, relative weighting considerations (even of stakeholders' interests within the immediate plan's area) will again emerge, and the plan will fall outside the public interest criterion's domain. *Id.* at 239. Consequently, Alexander laments that there is no substantive plan-evaluation criterion that directly reflects the public interest as a normative principle. *Id.*

²³⁴ *Nectow v. Cambridge*, 277 U.S. 183, 188 (1928) (quoting *Euclid v. Ambler Realty Co.*, 272 U.S. 365, 395 (1926)); *Agins v. Tiburon*, 447 U.S., 255, 260 (1980). Note that if the community has a zoning ordinance permitting matters to be approved on a "consent agenda" after the Commission meets, the record of the Commission's proceedings is the *entire* case record available for judicial review, because thereafter, the council or board of supervisors takes no further evidence or testimony. *Id.*

3. Information Enrichment

Under a citizen-inclusive system, in the process of divining the public interest, Commissioners listen to and discern the preferences of the community's myriad local planning constituencies, except where mob rule seizes the agenda, resulting in a crowd scene where Commissioners have little idea what is being assessed or opposed. This will happen far less frequently than otherwise, if a community invests in dashboards in libraries and community-gathering centers containing knowledge maps and argumentation maps coupled with discussion boards. These devices can and should publicly visualize patterns of change, identify commonly understood land use problems for resolution, and display the relationships of data sets to upcoming planning decisions²³⁵—creating an informed and engaged population of citizen-planners. One universal complaint from citizens is their lack of opportunity to engage fully in planning discourse since they are deprived of timely access to information and exhibits prepared by community staff or applicants for zoning entitlements. Even social networks like Nextdoor.com and GoNeighbour.org cannot substitute for having information at the real-time disposal of opponents, although these media are converting neighborhood associations into digital town halls in their intention to increase accountability.²³⁶ Therefore, goes the neighbor opposition's argument, they lack needed time and tools to refute the legitimacy of the applicant's claims and the accuracy of data reported as "facts" supporting those claims.

The most aggressive among activists complain of the developer's preservation of "surprise features" of their entitlement applications, and therefore increasingly demand communities disseminate developer-generated information in "real time," promptly upon delivery to the bureaucracy. Planning staffs rarely have been prepared to respond to such requirements, even when made by elected officials, but a few simple rules for submitting physical documentation and rudimentary technology can overcome the public's perception of "preparedness imbalance." Requiring all entitlement case stakeholders (including city staff for items like staff reports and analyses) to use an open-data portal sponsored by the community (or run by agencies endorsed by the community as local data intermediaries²³⁷), will facilitate uploading for public inspection pertinent data and documents, rendering resulting planning "products" that are continuously accessible to all participants connected to the Internet. A community can mandate that no uploading of material to the open-data, file-sharing service(s) will be permitted during some

²³⁵ TOWNSEND, *supra* note 45, at 307. See Brabham, *supra* note 3, at 255–56, for a discussion of community technology centers incorporated into public institutions like public libraries.

²³⁶ KATZ & NOWAK, *supra* note 32, at 19–20.

²³⁷ See, e.g., Sanders, *supra* note 78, at 21–30.

embargo period immediately preceding public deliberations—and that sanctions for disobedience will include continuance of the proceedings to afford further stakeholder review opportunity or utter disregard of the tardily-submitted material as a portion of the record of the proceedings.

In conducting their deliberations, citizen planners and stakeholders providing data will discuss the impacts of the big data gleaned from sensor readings, the analytics of such data, and models based upon the interpretation and weighting of that data. Both live and online, asynchronous dialoging processes must be implemented to understand contributed placemaking data, including local, anecdotal information. Creating occasional special data-technologist panels appointed by Commissioners to interpret data will bridge disagreement among stakeholders over the meaning of data and the weight to accord certain results generated.²³⁸ With the deliberative process “sorted,” the *substance* of planning, underpinned by the central guidance document variously known as the community’s “general,” “master” or “comprehensive” plan, is evaluated for suitability in a fast-paced world increasingly informed by cyberspace and its adherents.

B. Making Comprehensive Plans Comprehensible Through Timely Revisions

States vary widely in how often local jurisdiction comprehensive plans must be updated.²³⁹ In Arizona, these master plans must be updated every ten years, unless municipal or county dispensation to delay updates is obtained from the state legislature.²⁴⁰ In California, state law does not mandate how often the General Plan must be fully updated, but each jurisdiction’s General Plan’s Housing Element must be updated every eight years under California’s statutes. The California Attorney General strongly recommends that a community’s General Plan be updated periodically (typically between ten to twenty years); however, enforcement of this admonition is spotty.²⁴¹ General plans are organic and should be treated accordingly. Awaiting a decennial to change them ensures they remain, from one iteration to the next, significantly

²³⁸ *Bridging the Gulf*, *supra* note 203, at 617.

²³⁹ *Moderating Citizen Visioning*, *supra* note 194, at 34.

²⁴⁰ See ARIZ. REV. STAT. ANN. § 9-461.06(K) (2012) (“general plan . . . is effective for up to ten years from the date the plan was initially adopted and ratified . . . or until the plan is readopted” or amended).

²⁴¹ California Planning Roundtable, *Acknowledging the Gaps: Where the General Plan Falls Short*, REINVENTING THE GENERAL PLAN BLOG (Oct. 28, 2010, 10:08 AM), <http://reinventingthegeneralplan.org/blog/current-weaknesses/>.

out of date.²⁴² Among other factors, the impact of technology upon economic development and collaborative engagement among the population means that some communities experiencing rapid immigration and growth confront situations less dynamic communities merely anticipate; the former capitalize on planning staff experience and technological know-how, anecdotal (but consequential) information possessed by layperson stakeholders, and IoT sensor readings.²⁴³

General plans require so much time to revise in part because the exercise itself customarily is enervating. In California, local government general plan updates are expected to consume between 12–18 months of effort, but the process can consume five years or more²⁴⁴ because, inclusively derived,

²⁴² See TOWNSEND, *supra* note 45, at 305 (planning assumes a more “agile, fluid process than the semi-decade slog it is today in most cities”). Townsend notes that “master strategies” will allow plans to be “updated frequently to reflect changes in society, economy and environment,” taking advantage of the torrents of data produced by smart systems that inform each iteration of a community’s master plan. *Id.* Some planning processes do permit annual “updating” to reflect changes occurring through major new development. See PLANPHX LEADERSHIP COMMITTEE, PLANPHX 2015 GENERAL PLAN 193–95 app. B (2015), https://www.phoenix.gov/pddsite/Documents/PZ/pdd_pz_pdf_00451.pdf. Instructions from the Phoenix Planning & Development Department indicate to applicants that it takes a minimum of five to six months to receive a decision on a General Plan Amendment from the City Council. PHX., PLANNING PROCESS GUIDE, GENERAL PLAN AMENDMENT 1 (2016), https://www.phoenix.gov/pddsite/Documents/PZ/pdd_pz_pdf_00236.pdf.

²⁴³ See TOWNSEND, *supra* note 45, at 306. Townsend suggests that a “feedback loop” between planning functions and daily city performance highlighting community successes and failures affords the “ability to redesign the city on the fly,” featuring “soft fixes” and a culture of iterative design; this in turn implicates more flexible planning protocols. *Id.*

²⁴⁴ Eva Spiegel & Jude Hudson, *Why Now Is a Smart Time to Consider Updating Your General Plan*, WESTERN CITY (Mar. 1, 2011), <http://www.westerncity.com/Western-City/March-2011/Why-Now-Is-a-Smart-Time-to-Consider-Updating-Your-General-Plan/>. The poster child for slow progress perhaps is wine-country community St. Helena, California. There, the City Council appointed a General Plan Update Subcommittee in June 2005, a draft plan was released in August 2010, sweeping changes were made by the City Council to the plan in 2013 (including guidelines for “Complete Streets”), and the General Plan review was nearly approved by its City Council as of June 1, 2014, before remanding it to the Planning Commission. See Jesse Duarte, *General Plan Update Approaches 10th Year*, ST. HELENA STAR (May 21, 2014, 10:00 AM), http://napavalleyregister.com/star/news/local/general-plan-update-approaches-the-year/article_49edc37e-72bd-5374-96bc-e7d441868b53.html. The Planning Commission completed its study and the City Council is considering a draft plan dated June 2017, seven years after the initial draft plan issued. See ST. HELENA, GENERAL PLAN UPDATE 2035 (May 2017), http://cityofsthelema.org/sites/default/files/fileattachments/planning_resources/page/3355/gp_update_2035_06.22.2017.pdf. It seems that in August 2017, however, the Council discovered it had to repeat the Environmental Impact Statement related to adoption of its general plan, as too much time had elapsed since the earlier plan. See Michael Waterson, *St. Helena’s General Plan Faces a Costly Setback*, NAPA VALLEY REG. (Aug. 27, 2017), http://napavalleyregister.com/news/local/st-helena-s-general-plan-faces-a-costly-setback/article_1ec89c22-5c54-5ef0-87f8-9c5bb5f839c8.html. The new Draft Environmental

the document is iterative, the handiwork of hundreds of municipal employees and citizens. Second, in times of economic pressure on cities, spending millions of dollars on general plan revisions is undesirable.²⁴⁵ Third, as updating a plan requires citizens to make difficult choices between competing civic values and community virtues, adoption more resembles stutter-stepping than marching in a line.²⁴⁶ The role of planning commissions recommending updates to a comprehensive plan is ingrained in municipalities, but increasingly citizen inputs are integral to that process.²⁴⁷ Delegates to citizen bodies appointed to study and comment upon (or revise) drafts of such plans should include teenagers as much as the elderly because youths must live with the results of choices (and places) made.

Perhaps Planning Commissions should recede into the background in favor of more emphasis on direct democracy and creativity, as opposed to bureaucratic reaction.²⁴⁸ Without inter-generational participation, we should expect that places made in the future will resonate mostly, if not exclusively, with the adopting generation. Do the elders understand, as one illustration, the

Impact Report, all 620 pages in length, is dated October 23, 2018; and the Plan now is retitled the “St. Helena General Plan Update 2040.” See ST. HELENA GENERAL PLAN UPDATE 2040, DRAFT ENVIRONMENTAL IMPACT REPORT SCH#2010042001, http://www.cityofsthelema.org/sites/default/files/fileattachments/planning_resources/page/3505/st._helena_2040_general_plan_update_deir_october_2018.pdf. The Grapes of Wrath have been harvested for this Plan.

²⁴⁵ Kellie Mejdrich, *State: Half of Cities, Counties Have Outdated General Plans*, THE ORANGE COUNTY REG. (Aug. 15, 2013, 3:40 PM), <http://www.oregister.com/articles/general-521304-plans-cities.html>; Spiegel & Hudson, *supra* note 244.

²⁴⁶ See, e.g., SAN ANTONIO DEP’T. OF PLAN. & CMTY. DEV., COMPPLAN2040 1.1, <http://www.sanantonio.gov/Portals/0/Files/Planning/DPCDWorkChart.pdf>. The author participated in a Town Hall for the City of Scottsdale’s revision of its General Plan 2035 during February 2013. (Scottsdale’s prior General Plan lapsed in 2012 before the City could amend it, as a March 2012 special election was unsuccessful, yet Arizona statutes require municipal updates every 10 years.) See Widener, *supra* note 194, at 34. As of December 2017, the Scottsdale City Council still had not voted on its general plan revision, because city staff still was updating two elements of the plan mandated under state law. See CITY OF SCOTTSDALE, GENERAL PLAN 2035, <http://www.scottsdaleaz.gov/Assets/ScottsdaleAZ/General+Plan/2035/2035FullDocument.pdf#search=general%20plan%202035>. Scottsdale’s 2001 General Plan remains in effect. See STATE REQUIRED 10-YEAR GENERAL PLAN UPDATE, <https://www.scottsdaleaz.gov/general-plan/general-plan-update>.

²⁴⁷ See, e.g., Tomas M. Koontz, *We Finished the Plan, So Now What? Impacts of Collaborative Stakeholder Participation on Land Use Policy*, 33 POL’Y STUD. J. 459, 459 (2005) (showing local governments’ citizen stakeholders are increasingly engaged in decision-making through participatory efforts).

²⁴⁸ “For a discipline born of creative minds, urban planning is remarkable for its reactive rather than its proactive nature.” Morgan, *supra* note 11, at 174. The City of Phoenix’s first General Plan map, adopted in 1985, promoted as a long-range guide for the city, fundamentally represented conditions on the ground.

consequences of conflating repose (leisure enjoyed alone), socialization (group-imbued leisure) and work? Many communities develop comprehensive plans based on then-current development conditions rather than developing plans for desired conditions because their leaderships stodgily avoid refocusing planning efforts until these become absolutely (and painfully obviously) unavoidable. An illustration: notwithstanding the death of the conventional covered mall in the wake of omni-channel retail marketing,²⁴⁹ general plans in many communities have not been updated to reflect that such sprawling (and often empty) retail properties are eligible for mixed-use development featuring office and residential components.²⁵⁰ An accelerated economic recovery presumes that communities proactively schedule moribund mall improvements in districts allowing for thoughtful repurposing or adaptive reuse of their infrastructures.

Naturally, direct democracy even in master planning is severe innovation, and not just to those professionals or politicians feeling threats to career or self-importance. Some feel the threat of a highly-networked world becoming anarchic, when traditional hierarchies diminish in consequence.²⁵¹ The end of clear hierarchies in the land use regulatory realm portends messiness. The exercise of plenary authority is inevitably more efficient, as less time is expended in time-consuming arguments about “what to do next.”²⁵² Further, the sacrifice of public bureaucracies means diminished “gatekeeping” and its attending potential voice to thought-leaders who are miscreants.²⁵³ Those fears presume of course, that groups of citizens are unable to perceive—and effectively deal with—universal threats by making common cause.

²⁴⁹ See Natasha Geiling, *The Death and Rebirth of the American Mall*, SMITHSONIAN.COM (Nov. 25, 2014), <http://www.smithsonianmag.com/arts-culture/death-and-rebirth-american-mall-180953444/?no-ist>. See generally Darrell Rigby, *The Future of Shopping*, HARV. BUS. REV. (Dec. 2011), <https://hbr.org/2011/12/the-future-of-shopping>; *Begone Euclid*, *supra* note 182, at 834.

²⁵⁰ See, e.g., John Issakson, *LA's Regional Shopping Centers: Wave of the Future or Reminders of the Past?*, CITY WATCH (Feb. 9, 2017), <http://www.citywatchla.com/index.php/los-angeles/12583-la-s-regional-shopping-centers-wave-of-the-future-or-reminders-of-the-past> (“[T]here are no policies and regulations concerning the location and design of regional shopping centers in LA’s General Plan and in the zoning regulations of the City of Los Angeles. For these planning documents, regional malls do not exist[.]”); HOWARD COUNTY, MD., DOWNTOWN COLUMBIA PLAN: A GENERAL PLAN AMENDMENT (2010), <https://www.howardcountymd.gov/LinkClick.aspx?fileticket=gPcRmgEWLcA%3d&portalid=0>. (“Despite the passage of four decades, however, Columbia Maryland’s downtown never developed the character one expects in the heart of a community. It is still primarily suburban in nature, with relatively undistinguished office buildings and an enclosed shopping mall at its core.”) The amendment, adopted in February 2010, allows for a cross-town walking route from neighborhoods to the Mall and for mixed uses in the downtown core. *Id.*

²⁵¹ Niall Ferguson, *In Praise of Hierarchy*, WALL STREET J., at C1 (Jan. 5, 2018, 1:02 PM), <https://www.wsj.com/articles/in-praise-of-hierarchy-1515175338>.

²⁵² *Id.* at C2.

²⁵³ *Id.*

VIII. SPECIFIC ZONING, GENERATING PRIVATE-SECTOR AND CITIZEN ALLIANCES FOR PLACEMAKING

[Cities should be] more determined to ensure that growth and opportunity flourish organically in all neighborhoods . . . cities can unlock a great deal of creative energy if they will more fully and frequently trust market participants to identify what needs to be done and allow them to proceed with fewer regulatory or zoning impediments.²⁵⁴

Part VIII addresses initiatives that can be implemented, at least experimentally, by combining Stephen Walters' call for greater creativity in the planning realm with reduction in regulatory controls tending to curb or retard innovation in placemaking. Sections VIII.A and VIII.B discuss current zoning approaches applicable to mixed use activities centers that may become the new convention for places-made. Section VIII.C describes financial vehicles through which such innovative places can be implemented without taxing citizens or depleting local governments' operating budgets, in part by engaging citizens as investors at community grassroots levels.

A. *Floating Zoning and Advance Utilization Approvals of Places Made*

General plans should incorporate placemaking via designating "intermingling neighborhood nodes" ("INNs"). INNs (following their location by referendum of the voters) can be implemented through application of a zoning ordinance's permissible floating zones.²⁵⁵ A community's general plan may identify numerous potential INN sites on its map. Once a neighborhood-and-other-stakeholders' designed plan and narrative addressing placemaking, street activation, and buffering of the INN from purely residential areas, are approved by a local legislative body, an INN floating zone attaches to these sites. Uses of the INN will be deliberately mixed, limited only by the size of the

²⁵⁴ STEPHEN WALTERS, BOOM TOWNS: RESTORING THE URBAN AMERICAN DREAM 182, 184 (2014).

²⁵⁵ The floating zone approach entails adding a new district to the community's ordinance, but postponing fixing locations for the zone pending its affixture to individual parcels when a parcel's owner asks for that zoning designation from the local legislative body. See Jennie C. Nolon & John R. Nolon, *Land Use for Economic Development in Tough Economic Times*, 40 REAL EST. L.J. 237, 251 (2011); Sterk, *supra* note 193, at 251. This approach imbues community flexibility to determine where opportunities lie for development, especially of the mixed-use variety. See Nolon & Nolon, *supra* note 255, at 251. If a community has no provision for floating zone application, the essential ingredients of what is needed may be found in that community's Planned Unit Development ordinance. See, e.g., PHX., ARIZ., ZONING ORDINANCE § 671.

INN and the imagination of its creative “team.”²⁵⁶ Ideally, for citizens seeking the piazza of the 21st Century, the INN combines an authentic physical space, where community-building occurs face-to-face, with a gateway to digital space, where youth gather in elective, “personal” neighborhoods.²⁵⁷

After the floating zone (or a Planned Unit Development zoning district, similar to a floating zone, except each PUD is considered in the context of the

²⁵⁶ Cf. Michael N. Widener, *Curbside Service: Community Land Use Catalysts to Neighborhood Flowering During Transit Installation*, 45 URB. LAW. 407, 435–37 (2013). The primary features of improvements at the INN should incorporate modularity, connectivity, multi-modal transportation accessibility and flexibility in utility. A place that is broadly accessible seems a precondition to attraction to Millennials, as does connectivity to all sorts of personal networks. Today’s Wi-Fi “hotspot” will be replaced by something the author only imagines, but the younger reader likely visualizes with ease. Modularity features retractable roofs, overhead doors or perhaps movable exterior walls with minimal load-bearing walls to inhibit possible interior uses. Today’s “live-work” spaces may themselves be integrated into “maker spaces” inviting participants from around the community. See Will Holman, *Makerspace: Towards a New Civic Infrastructure*, PLACES J. (Nov. 2015), <https://placesjournal.org/article/makerspace-towards-a-new-civic-infrastructure/?gclid=Cj0KEQjw2sO3BRD49-zdzfb8iLwBEiQAFZgZfHnd8eCTdJowc3nqIVFLVNr2w-E9hjBN1Asu59md-xAaAtIT8P8HAQ>. Where recreational activities may have united communities around “teams,” tomorrow’s communities may be bound together by a sort of maker spectrum, engaged in activities that include forms of “grown-up play.” *Id.* INNs may choose to incorporate some form of studio that facilitates fresh creations of “content,” such as Snapchat affords its users today. See Max Chafkin, *Secret to Success: Why Snapchat Is Valued at \$16 Billion*, BLOOMBERG MARKETS (Mar. 3, 2016, 6:35 PM), <https://www.bloomberg.com/news/videos/2016-03-03/secret-to-success-why-snapchat-is-valued-at-16-billion>; Sarah McRoberts et al., *Share First, Save Later: Performance of Self Through Snapchat Stories*, Proceedings of the 2017 CHI Conference on Human Factors in Computing Systems, Denver CO May 6-11, 2017, 6902, 6909. Beacon technology likely will alert passers-by to “what’s on” in the community center, both in real time and through transmitted calendar entries, as persons approach the physical site. These sorts of amenities are likely to convey the message to the most reluctant visitor that there’s always room at the INN. Virtual tours of the INN using a camera and software like Matterport’s may be another way to entice visitors equipped with headsets. See Joanna Stern, *Why You Should Try That Crazy Virtual Reality Headset*, WALL STREET J. (Mar. 23, 2016, 10:24 AM), <https://www.wsj.com/articles/why-you-should-try-that-crazy-virtual-reality-headset-1458743074>. In another generation or two, if the Singularity comes to pass, most persons may occupy most of their time in virtual reality environments. See RAY KURZWEIL, *THE SINGULARITY IS NEAR: WHEN HUMANS TRANSCEND BIOLOGY* 335–42 (2005). In that event, assuming the INN remains a gathering space, the desires of the artificial intelligence-agent (the singularitarian) may be remarkably different than INNs feature during the first half of this century. Or perhaps the INN will just become one locus of content in a larger virtual community further advancing human isolation. Cf. Stern, *supra* note 256. Some argue that virtual communities are destined to replace geographic places. See Manzo & Perkins, *supra* note 23, at 342.

²⁵⁷ See Tom Vanderbilt, *Welcome to the Jumble: What Place Do Neighborhoods Have in Modern Cities?*, 37 WILSON Q. 16, 25 (Fall 2013) (noting that these are communities of interest opposed to physical proximity), <https://www.wilsonquarterly.com/quarterly/fall-2014-mexican-momentum/what-place-do-neighborhoods-have-in-modern-cities/>.

neighborhood and a narrative describing the project is reviewed²⁵⁸) is applied, INNs thereafter can be modified by less controversial and typically speedier special use (use permit) processes, understanding that the uses within these INNs will change from time to time at the election of the stakeholders. Because each INN's composition evolves and new modalities of community engagement drive modifications under this submittal process, land use regulator disapproval of the primary or accessory uses of the INN at the hearing date will not determine whether a use permit should be permitted (or denied). Instead, only negative, quantifiable impacts of the INN's proposed revised use will be the subject of the use permit hearing's official's decision and conditions of approval. Negative externalities created by the applicant's INN project are addressed by meeting performance zoning standards.²⁵⁹

Adopting floating zones or PUD standards for placemaking sites, especially for parcels owned by NGOs as described in the next Section, coupled with an intention to allow them freely and continuously to evolve, will be neither intuitive nor reflexive to current community land use thought-leaders. Bureaucratic mentalities and obeisance to professional disciplines impair change, even when public participation is the administration's stated agenda.²⁶⁰ Communities must avoid formulaic responses, thoughtlessly repeating past procedures and replicating familiar past practices, enabling a "fresh look" at each INN's proposal.²⁶¹ Otherwise, solutions are driven by manageable financial calculation and procedural proprieties. These INNs that are replicated will insufficiently focus on insight-based outcomes and community potential for sustainability and competitiveness gains.²⁶² Having considered how to keep these places fresh and compelling to their desired citizen-users, I now discuss how their stewardship ought to be managed.

²⁵⁸ See DANIEL R. MANDELKER, *PLANNED UNIT DEVELOPMENT*, PLANNING ADVISORY REPORT No. 545 22, 29, 111–12 (Am. Planning Ass'n. 2007).

²⁵⁹ See generally Widener, *supra* note 7, at 652–56, 671.

²⁶⁰ See Jeffrey Hou & Michael Rios, *Community-Driven Place Making: The Social Practice of Participatory Design in the Making of Union Point Park*, 57 J. ARCHITECTURAL EDUC. 19–20 (2003). See generally Morgan, *supra* note 11, at 165, 179 (“[U]rban planning itself is now more a matter of public administration and bureaucracy than it is a matter of design . . .”), 191, 197 (noting that successive municipal councils or land-use regulatory bodies might never agree on what the public needs from an aesthetic standpoint). This view perhaps explains the general plan updating circumstances in Scottsdale, Arizona. CITY OF SCOTTSDALE, *supra* note 246.

²⁶¹ See Hou & Rios, *supra* note 260, at 19–20; Morgan, *supra* note 11, at 196 (observing that local authorities cannot be trusted to have taken into account matters of direct importance to a land use decision, because there are “no agreed upon criteria” spanning all potentially applicable planning approaches—leaving all criteria considered “inherently subjective.”).

²⁶² See CHARLES LANDRY, *THE CREATIVE CITY: A TOOLKIT FOR URBAN INNOVATORS* 40 (2000); Hou & Rios, *supra* note 260, at 19–20. See generally Widener, *supra* note 7, at 669–71.

B. Land Trust Ownership of Public Places and Joint Development Agreements

Since the City Beautiful Movement, communities assumed placemaking was the province of the public realm, as city parks were acknowledged as public goods. Ownership of place requires rethinking, as places are subject to more frequent change in the transmuting realm of digital place. Placemaking today must involve more scattered and plentiful locations than an occasional city park. And it must feature neighborhood districts partnering with public agencies becoming cornerstones of physical revitalization by raising project visibility and civic capital in restoring public spaces.²⁶³ Communities may pursue to this end conveying or to ground leasing parcels (especially from surplus or abandoned parcels and particularly those connected with transit projects) susceptible to placemaking to a body like a non-profit, mixed-use community land trust,²⁶⁴ shorthanded below as “community organizing and mingling enterprises,” or “COMEs.” One obvious advantage of transferring land interests from the public trust to a COME is avoiding serial bureaucratic interventions with successive occupants of the property. The COME has only one agenda—to make these places-made resonant, welcoming and beautiful to future generations, so that “homecoming” continues over time and across successive mixtures of uses.

Three prototypes of land trusts may aid the INN in achieving flexible placemaking. A “master lessor” model allows the lessee COME to sublease to businesses and other operators of studios, offices, clinics and storefronts,

²⁶³ See KATZ & NOWAK, *supra* note 32, at 26.

²⁶⁴ See Greg Rosenberg & Jeffrey Yuen, *Beyond Housing: Urban Agriculture and Commercial Development by Community Land Trusts*, 2 (Lincoln Instit. Land Policy, Working Paper, 2012), http://www.lincolnst.edu/sites/default/files/pubfiles/2227_1559_rosenberg_wp13gr1.pdf; Anne Craig, *Why Not a Community Land Trust?*, 4, 6 (Apr. 28, 1997) (unpublished bachelor’s thesis, Ball State University), http://cardinalscholar.bsu.edu/bitstream/handle/handle/185434/C73_1997CraigAnne.pdf?sequence=1. Such land trusts, abbreviated “CLTs,” were introduced by Robert Swann and Ralph Borsodi through “intentional communities” of residential developments created in America during the 1960s. Rosenberg & Yuen, *supra* note 264, at 2. A dweller leases land from the CLT for a long term and then purchase improvements made to that land from the Trust. *Id.* at 10–11. If the dweller determines to sell the residence, it must first be offered to the CLT before listing it; but the land remains owned, thus controlled, by the CLT. *Id.* at 2. The original intention of CLTs was to make housing more affordable and to exercise some stewardship over these projects, but a minority of CLTs engage in land acquisition, project development, and property management while spearheading community engagement and creating new commercial enterprises. *Id.* at 19–22.

together with sidewalk-based enterprises.²⁶⁵ An INN association of occupants may dictate some regulations for peaceable co-occupancy of the INN, subject to those covenants binding the master lessor acquiring the land from the community. This method affords the COME master lessor the greatest flexibility in modifying uses when portions of the space are vacant. Similarly, but less flexibly, a non-profit organization established as a commercial community land trust could subdivide portions of the space COME controls for occupants to purchase, including businesses and non-profit organizations.²⁶⁶ While this model permits modest wealth-building among the owners of portions of the INN, typically land trusts limit equity appreciation realization (profit-taking) at resale, to secure continuing affordability.

Blending the first two models, in a public commercial land trust, the community owning the land and improvements enters into a long-term lease with a single non-profit entity for the improvements alone, retaining greater community control of the entire site including building facades.²⁶⁷ This COME may or may not sublease or license portions of the improvements for a variety of activities. Opponents of this last model may argue, however, that those leasing or licensing operators receive an unfair competitive advantage in an escalating rent environment, because business operators receive a private inurement (economic benefit) from renting from a publicly-funded enterprise supported in part by taxpayer dollars.²⁶⁸

The vehicle of property governance bears discussing. Joint Development Agreements initially can describe the broad goals of an INN and govern specific dimensions of the land trust's development and re-development of place over time.²⁶⁹ These projects may involve the COME being actively

²⁶⁵ See, e.g., GREATER FROGTOWN CMTY. DEV. CORP. ET AL., COMMERCIAL LAND TRUST FEASIBILITY FINAL SUMMARY 5 (2012) [hereinafter FROGTOWN], <http://cltnetwork.org/wp-content/uploads/2013/12/2012-Commercial-Land-Trust.pdf>; see also Elizabeth Sorce, The Role of Community Land Trusts in Preserving and Creating Commercial Assets: A Dual Case Study of Rondo, CLT in St. Paul, Minnesota and Crescent City CLT in New Orleans, Louisiana, 9 (Aug. 2, 2012) (unpublished master's thesis, University of New Orleans), <https://pdfs.semanticscholar.org/1217/a256eb707758f24d8a0c8068f06c3cfdc944.pdf>.

²⁶⁶ See FROGTOWN, *supra* note 265, at 6; Sorce, *supra* note 265, at 9.

²⁶⁷ FROGTOWN, *supra* note 265, at 7. LA Metro retains ownership of ground leases of surplus lands because its properties frequently are atop transit stations, those resulting joint developments being integrated physically with the station. See STRATEGIC ECONOMICS, INCENTIVIZING TOD: CASE STUDIES OF REGIONAL PROGRAMS THROUGHOUT THE UNITED STATES 24–25 (2012) [hereinafter STRATEGIC ECONOMICS].

²⁶⁸ See FROGTOWN, *supra* note 265, at 7.

²⁶⁹ These may be two- or three-party agreements, as developer interests may pay a placemaking projects construction costs and other sums in consideration of ownership of some improvements. See STRATEGIC ECONOMICS, *supra* note 267, at 25. Other NGOs or public agencies may be parties to the agreement if they develop affordable housing projects. *Id.*

engaged in the development or partnering with a private developer for improvements' construction. In the latter instance, the COME may focus on its stewardship function, insuring the INN fulfills the local citizens' priorities expressed in a general plan or the floating zone approval. The Joint Development Agreement exacts affirmative and negative covenants²⁷⁰ from the COME in favor of the larger community. Examples of such covenants include prohibited uses (likely limited to nuisances by anyone's standards), emphasis on placemaking to ensure optimal cross-generational neighborhood interactions, and maximum provided parking (calculated to compel INN access by walking, biking/skating and mass transit usage). The Joint Development Agreement also can address the future possibility that the COME is unable or unwilling to perform its INN stewardship responsibilities. In that latter instance, the community alternatively may (a) receive back the parcel by reversion of its ownership or control, or (b) assume the COME's powers and responsibilities before the COME or community titles the INN to another enterprise willing to replace the initial COME as steward of the land. Of course, these novel conceptual structures initially will be challenging to finance. Funding is tackled in the next Section, and minimally, interim financing must be plausible, because "philanthropy" alone is not a mantra worthy of serious community reflection.

C. *Crowdfunding of Improvements to INNs, and Other Funding Mechanisms*

Naturally, one challenge to offering flexibility across generations of administrations of the COME is adapting the INN to meet the needs of the current body of users seeking place-attachment, in the process becoming its ardent supporters. Where communities of stakeholders initiate and realize projects without the continuous consent of public officials through serial land use hearings, crowdfunding enables organized economic activity, while social capital promotes the desired outcome.²⁷¹ Crowdfunding is an egalitarian form

²⁷⁰ Cf. Widener, *supra* note 256, at 441–44. A "negative covenant" is the maker's promise not to do something; think, for instance of a covenant not to act in a way violating the community's regional transportation authority's compact obligations, or to engage in practices violating the community's sustainability commitments, for instance by consuming excessive energy on the property. See *The Effects of Restrictive Covenants on Land Use*, TIBBETS, KEATING & BUTLER (Apr. 1, 2013), <http://www.tkblaw.com/the-effects-of-restrictive-covenants-on-land-use/>.

²⁷¹ See, e.g., Alexandra Stiver et al., *Civic Crowdfunding Research: Challenges, Opportunities, and Future Agenda*, 17 NEW MEDIA & SOC'Y 249, 251, 260 (2015), http://oro.open.ac.uk/41478/1/CivicCrowdfunding_NMS_December2014.pdf (noting community gathering places among projects launched); see also DAVIES, *supra* note 16, at 108; FUNDING THE COOPERATIVE CITY: COMMUNITY FINANCE AND THE ECONOMY OF CIVIC SPACES (Daniela Patti &

of preference expression—unlike other funding mechanisms where the lender or the grant-giver imposes regulatory oversight on use.²⁷² Because civic crowdfunding allows groups to organize more cheaply at greater scale, the spectrum of possible INN projects increases, as does the potential to establish new landholding agencies in a community.²⁷³ Crowdfunding effects the change participants seek using their wallets.²⁷⁴ Under the structure proposed here, progress is possible within the framework of existing local planning processes while transferring agency directly to persons most affected by the results.²⁷⁵ This frees up opportunity for experimentation, when civic placemaking affiliates exhibit less fear of failure.²⁷⁶

The novelty of civic crowdfunding may raise skepticism among institutional lenders and others unfamiliar with its parameters,²⁷⁷ and indeed, its track record has short history. Early evidence suggests that civic funding's success may outstrip conventional crowdfunding when the marketing approach is well-conceived, such as by framing a campaign to appeal to creative

Levente Polyák eds., 2017) <https://cooperativecity.org/product/funding-the-cooperative-city-preview/>.

²⁷² DAVIES, *supra* note 16, at 110. One advantage to crowdfunding, like other social media, is the vast reduction in the costs of coordination, allowing larger and looser groups to take coordinated action formerly the province only of highly organized formal organizations and governments. See Shirky, *supra* note 160, at 19. Compare that situation to a non-profit's securing institutional loans with limitations on property use, or those restrictions of bureaucracies existing under Community Development Block Grants administered by local governments (funded by the U.S. Department of Housing and Urban Development) for youth services and enrichment programs that include a component for acquisition, new construction or renovation of a public facility. See, e.g., PHX. GRANT OPPORTUNITIES, PUBLIC FACILITIES/NEIGHBORHOOD COMMERCIAL REHABILITATION, <https://www.phoenix.gov/nsdsite/Documents/100812.pdf>.

²⁷³ DAVIES, *supra* note 16, at 108.

²⁷⁴ See *id.*; Stiver et al., *supra* note 271, at 18; Co-City, *Civic Crowdfunding: A Collective Option for Urban Sustainable Development*, WORLD URBAN CAMPAIGN, <http://www.worldurbancampaign.org/civic-crowdfunding-collective-option-urban-sustainable-development> (last visited Nov. 9, 2018) (claiming civic crowdfunding allows citizens and civil society at large to rethink their neighborhoods and potentially produce or renew urban commons).

²⁷⁵ Co-City, *supra* note 274. In the realm of the community-organized civic crowdfunding campaign, there is no public intermediary between the community and its funding mechanism, and the COME exercises complete managerial control subject only to zoning adjustment controls. See DAVIES, *supra* note 16, at 108.

²⁷⁶ See Katie Lorah, *Why You Should Consider Crowdfunding Your Neighborhood Project (Instead of Writing a Grant)*, STRONG TOWNS (May 4, 2017), <https://www.strongtowns.org/journal/2017/5/3/why-you-should-consider-crowdfunding-your-neighborhood-project-instead-of-writing-a-grant>.

²⁷⁷ See Martin Mayer, *Civic Crowdfunding and Local Government: An Examination into Projects, Scope, and Implications for Local Government* 14 (Dec. 2016) (unpublished Ph.D. dissertation, Old Dominion University), <https://search.proquest.com/docview/1870046017>.

opportunity and broader utility.²⁷⁸ Illustrations of the success of civic crowdfunding with land use dimensions in Great Britain are populating spacehive.com.²⁷⁹ One project directly interfacing with placemaking is the repurposing of sterile infrastructure called The Flyover Liverpool.²⁸⁰ A second project inspiring placemaking possibilities in the realms of human wellness, heritage, and culture, while preserving evidence of Manchester's pioneering contributions to medicine, is partial restoration and conversion for mixed-use purposes of the Ancoats Dispensary, a multi-story Victorian-era building.²⁸¹ Through Spacehub.com, in 2015, this dispensary restoration project raised \$490,000 USD.²⁸² In a far less ambitious but perhaps more purely placemaking endeavor, the London Business Partnership Limited raised \$98,000 USD in 2017 for the Village Garden Triangle in London's Harrow Council district, seeking to restore to this tiny fragment of Harrow's original Garden City²⁸³ plan "a communal area where people can simply pause and breathe, sit and be entertained . . . [intending that] a small change will open it up to more

²⁷⁸ See DAVIES, *supra* note 16, at 118, 124. In any case, Davies notes that municipal economic distress is unlikely to produce an alternate funding mechanism, such as floating improvement district bonds. *Id.* at 123.

²⁷⁹ SPACEHIVE, <https://www.spacehive.com/> (last visited Nov. 9, 2018); see also Matthew Hollow, *Crowdfunding and Civic Society in Europe: A Profitable Partnership?*, 4 OPEN CITIZENSHIP 68–73 (2013), <https://ssrn.com/abstract=2333635>.

²⁸⁰ SPACEHIVE, *supra* note 279. This project repurposed two elevated vehicular ramps. *Id.* The Churchill Way Flyover wraps around the rear of Liverpool, England's principal museum, art gallery and library, cutting off these facilities from the north of the city. *Id.* The crowdfunding proposal gives the city an opportunity to engage with this public space, converting it into outdoor classrooms and gallery. The Flyover eventually will (one expects) become a space for arts, music, dance and education events as well as markets, shops and community gardening projects and home to small independent businesses—ambitious goals, indeed. It will reconnect residential communities in north Liverpool with the city, while allowing visitors to the city's heritage quarter to walk along a unique public space towards the waterfront. It will also provide connectivity between three campuses of a city university for staff and students with zones suitable for cyclists and pedestrians. Three hundred forty-five backers raised approximately \$55,000 USD on Spacehive for design studies. The fundraising led to formation of Friends of the Flyover, and production of a book on the project, strengthening ties among stakeholders and identification with the project. See FRIENDS OF THE FLYOVER, <http://friendsoftheflyover.org.uk/> (last visited Nov. 9, 2018).

²⁸¹ *Ancoats Dispensary*, MANCHESTER EVENING NEWS (Oct. 24, 2017), <http://www.manchestereveningnews.co.uk/all-about/ancoats-dispensary> (compendium of stories in this daily paper).

²⁸² See *Ancoats Dispensary Ltd., Save the Ancoats Dispensary*, SPACEHIVE, <https://www.spacehive.com/thebeatingheartofancoats> (last visited Nov. 9, 2018).

²⁸³ The so-called garden city as a planning discipline served, optimistically, to further "a genuinely ethical and civic life while providing the individual a sense of connection and order." See STANLEY BUDER, *VISIONARIES AND PLANNERS: THE GARDEN CITY MOVEMENT AND THE MODERN COMMUNITY* 210 (1990).

community identity and entrench community cohesion now and into the future.”²⁸⁴

Realistically, a majority of citizen-driven crowdfunding endeavors for the moment cannot raise the amounts needed for major capital improvements to sites requiring substantial repurposing without expert advice on capital pooling. Crowdfunding will need to mature as a means of placemaking financing for large-scale projects. But the magnitudes of funds raised today may act as seed capital for three party transactions, when citizen stakeholders join with the efforts of local governments and one of two private actors—philanthropic funds or investment enterprises engaged in impact investing.²⁸⁵ Philanthropic foundations increasingly desire to be involved in public purpose and community development finance in collaboration with non-profits.²⁸⁶ In that regard, placemaking can be a “convergence model” for grant-makers, charitable foundations or philanthropists to donate funds, provide grants and make capital investments.²⁸⁷ Private banks and venture capitalists meanwhile promote investment funds addressing the “double bottom line” of profit and advancing social purpose.²⁸⁸

²⁸⁴ See London Business Partnership Ltd., *Our Village Garden Triangle*, SPACEHIVE, <https://www.spacehive.com/our-village-garden-triangle> (last visited Nov. 9, 2018). The total raise wasn’t large here, but scoffers may want to consider the GBP (£) raised per square foot of land involved. *Id.*

²⁸⁵ Impact investing is defined generically as an investment activity purposed to generate both positive social and financial returns. See *Impact Investing*, COUNCIL ON FOUNDATIONS, <https://www.cof.org/content/impact-investing> (last visited Nov. 9, 2018). The Council notes that the terminology relating to this form of finance is viscous, and alternatively is called mission investing, social investing, social-impact investing, mission-related investing, program-related investing, or sustainable and responsible investing. *Id.* Other writers note that the term “impact investing” is still being defined by industry standards. See Casey C. Clark & Andy Kirkpatrick, *Impact Investing Under the Uniform Prudent Investor Act*, 32 PROB. & PROP. MAG. 32, 33 (2018).

²⁸⁶ See Alex Neuhoff et al., *Making Sense of Nonprofit Collaborations*, THE BRIDGESPAN GROUP 9–15 (2014), https://www.bridgespan.org/bridgespan/Images/articles/making-sense-of-nonprofit-collaborations/MakingSenseOfNonprofitCollaborations_1.pdf.

²⁸⁷ See PROJECT FOR PUBLIC SPACES, *supra* note 37.

²⁸⁸ See, e.g., *Impact Investing*, GOLDMAN SACHS, <http://www.goldmansachs.com/what-we-do/investing-and-lending/impact-investing/index.html> (last visited Nov. 9, 2018) (noting its Urban Investment Group partners with “local leaders and nonprofits, focusing on community development). The spectrum of grants, loans, and credit enhancement tools under the generic heading “impact investing” is staggering. See Lori Kozlowski, *Impact Investing: The Power of Two Bottom Lines*, FORBES (Oct. 2, 2012, 2:08 PM), <https://www.forbes.com/sites/lorikozlowski/2012/10/02/impact-investing-the-power-of-two-bottom-lines/#341c1e5d1edc>. Readers can be buried in a welter of overlapping terminology used in this finance space. One task force recently opined that “sustainable investing,” “responsible investing,” and “social responsible investing” are interchangeable terms generally incorporating the virtues of environmental and social thoughtfulness, contemplating longer-term

Demonstrating citizen commitment to a placemaking endeavor by crowdfunding allows foundations and other institutional lenders to gauge the depth of passion among the public stakeholders in the process. Finally, social enterprises can be formed in which the COME's administration partners with a business enterprise deploying for-profit strategies in collaboration with the local government to achieve the COME's mission.²⁸⁹ One organization in this niche is CSPM Group, an economic development and placemaking firm generating community engagement by all stakeholders directed to a joint vision for economic, social, and environmental benefits through "crowdsourced placemaking" impacting downtown redevelopment.²⁹⁰ CSPM asserts that it takes placemaking tasks traditionally done by real estate institutions and city departments and outsources those tasks "via open call to a large community with shared positive values—to transform existing spaces into inspiring destinations that people are passionate about and feel invested in."²⁹¹

IX. CONCLUSION

Essential ingredients of place, where an individual's visceral "homecoming" occurs, include uses and activities, comfort and image, access and linkages, and sociability-inducement dimensions. Different socio-economic situations, living conditions, and political contexts make each community unique. Therefore, each community—and the multiple generations of citizens living and working there—must determine their own priorities for placemaking.²⁹² (Accordingly, this paper merely flirts with identifying optimal placemaking physical, legal, or human components.²⁹³)

commitments—and observed that "these three terms do not mean much beyond a simplistic, generic nod to good." See TASK FORCE REPORT ON SUSTAINABLE INVESTMENT TAXONOMY, GREENCHIP 5 (Sept. 2016), <http://greenchipfinancial.com/wp-content/uploads/2016/09/Sustainable-Investment-Taxonomy-Report.pdf>.

²⁸⁹ See Linda O. Smiddy, *Corporate Creativity: The Vermont L3C & Other Developments in Social Entrepreneurship*, 35 VT. L. REV. 3, 4–5, 9 (2010), for a primer on "social enterprises" combining the financial engine of the business enterprise with the mission-driven purposes of the non-profit agency.

²⁹⁰ See *About Us*, CSPM GROUP, <https://cspmgroup.com/about/> (last visited Nov. 9, 2018).

²⁹¹ See *id.*

²⁹² See Morgan, *supra* note 11, at 198 (explaining for planning bureaucracies to lead rather than respond to the material culture represents "an illiberal turn from the ordinary process"); Thrift, *supra* note 37, at 104 ("[G]eographers working on place have started to join in a kind of politics which is intent on freeing up more of the potentials of place—and installing some new ones.").

²⁹³ See CASEY, *supra* note 33, at 232 ("Not being the content of definite representations—whether ideas or images—place is not determinate in character.") I speculate, however, that the strongest "ties" form in environments where working and living occurs in closest proximity, affording the most consistent exposure of neighbor to neighbor. See JEFFREY A. MOSS, *People in*

A shared social connection to place—whether a built, natural, or digital environment—forms social bonds.²⁹⁴ Some variety of social bond first must exist for public participation to occur, through stable, functional, and participatory discourse translating (over time) to social action.²⁹⁵ This social bond coalesces around a shared set of lay perceptions, operating at both conscious and subconscious levels. So, a shared vernacular and animating discourse creates social capital while increasing community empowerment and collective action, spurring, revitalizing and uplifting these animated neighborhoods.²⁹⁶

Today, sociability seems the universal yet unquantifiable factor in placemaking anywhere, holding particular significance for neighborhoods in transition. There, sociability permits people to learn about each other across race and class lines, or at least to become comfortable with unfamiliar cultural

Your Neighborhood, in THE SESAME STREET BOOK AND RECORD (1970) (“They’re the people that you meet *each day*.”) (emphasis added); Vanderbilt, *supra* note 257, at 25–26. The ultimate currently-established built environment expression of constant presence in the neighborhood, voluntarily at least, is the live-work unit. A live-work unit, in regulator-speak, is distinguished from a home occupation (as defined by a typical zoning ordinance) in that the work activity is not required to be incidental to the dwelling unit, and non-resident employees and customers may be on the work premises. *See, e.g.*, BURLESON, TEX., ZONING, APP. B, ART. II (2013). Today’s live-work unit in my children’s lifetime will become an anachronism, due to the accelerating mash-up of working, group socialization and individual repose. I predict the new expression for the work-not work conflation is a hybrid of a co-working space and an owner-occupied lifestyle hotel, projects featuring public spaces functioning as social hubs. *See, e.g.*, Craig Karmin, *Hong Kong Property Developer Invests in Co-Working Space Company NeueHouse*, WALL STREET J. (Aug. 25, 2015, 7:10 PM), <http://www.wsj.com/articles/hong-kong-property-developer-invests-in-co-working-space-company-neuehouse-1440515615?tesla=y>. It may be that the first among these models will anchor a mixed-use intentional community gathering place. Zoku Lofts are among the early entries in this sort of “bleisure” design, although these spaces currently are intended for renting as a sort of serviced apartment. *See, e.g.*, George Snell, *The End of the Hotel Room as We Know it? Zoku Brand Launched by CitizenM Co-Founder Meyer*, BOUTIQUE HOTEL NEWS (May 18, 2015), <http://www.boutiquehotelnews.com/home/news/2015/5/18/%E2%80%9Cthe-end-of-hotel-room-as-we-know-it%E2%80%9D-zoku-brand-launched-by-citizenm-co-founder-meyer/>; *Spacious Co-Working Hotel*, LOT-EK, <http://www.lot-ek.com/SPACIOUS-co-working-hotel> (describing a project with Spacious featuring open public seating and dining on the ground floor, co-working facilities on upper-floor balconies, with a hybrid hotel and meeting rooms located behind the co-working areas).

²⁹⁴ *See* Austin, *supra* note 49, at 221–22, 232. For some citizens, it appears that a goods consumption opportunity coupled with avoiding isolation through invited socialization renders grocery stores hubs of gathering—despite inroads made by online purchasing sites. *See* Anne Marie Chaker, *Finding Love in the Frozen-Food Aisle*, WALL STREET J., Mar. 12, 2018, at A12 (noting customers roaming the aisles seeking connection to other shoppers). Apparently, the public will fill the gap created by inadequate planning for placemaking.

²⁹⁵ *See* Austin, *supra* note 49, at 221, 231–32.

²⁹⁶ *Id.* at 236, 246; Berman, *supra* note 138, at 4, 6, 9; Manzo & Perkins, *supra* note 23, at 337, 342, 344, 346–47.

public expressions and interactions.²⁹⁷ Places fostering relaxed social interactions allow social and personal issues to be addressed and perhaps resolved.²⁹⁸ Individuals and groups gathering and mixing, forming weak ties or strengthening previously existing ties thereby, yield higher levels of sociability and inculcate accountability youth require to move into adulthood, integrating into a community with their elders.²⁹⁹

Community land trusts are one market participant in providing opportunities for neighborhood-constituent democratic planning. If a COME becomes the long-term owner of an INN, generations of neighbors are empowered to modify its physical space to maintain its quality of place, maintaining its evocative welcoming aspect, remaining relevant both to the changing character of invested neighbors and the successive preferences of youth deciding if a physical space can be central to their communities as they mature.

Whether sociability remains instrumental in a person's sense of belonging, considering this era of device—dependency and competition from digital space—remains unknown. Turkle, for one, pleads for face-to-face conversation to be restored to diverse human interactions, to build capacity both for self-reflection and for empathy.³⁰⁰ Technological embellishments alone will not, no matter how “smart” the city, cause memorable placemaking to occur. New Songdo outside Seoul, arguably the “smartest” city to date, is criticized for being unlivable, even “unnatural,” despite its efficiencies.³⁰¹

²⁹⁷ See DAVIES ET AL., *supra* note 144, at 13; Elena Vesselinov et al., *Gated Communities and Spatial Inequality*, 29 J. URB. AFF. 109, 111 (2007).

²⁹⁸ See DAVIES ET AL., *supra* note 144, at 13. *But see* Jonathan Lepofsky & James C. Frasier, *Building Community Citizens: Claiming the Right to Place-Making in the City*, 40 URB. STUD. 127, 134 (2003) (arguing that social interaction is not a marker of “belonging,” and that residence in a locale is not a prerequisite for building community among those dwellers active in community life).

²⁹⁹ See DAVIES ET AL., *supra* note 144, at 13–14; Vanderbilt, *supra* note 257, at 19.

³⁰⁰ See Turkle, *supra* note 89 (Conversation is the antidote to the “algorithmic” way of looking at life, because talk teaches an individual about fluidity, contingency and personality; these phenomena lead to an increase in empathy that is being assaulted by technology’s convenience and ubiquity.).

³⁰¹ See Ross Arbes & Charles Bethea, *Songdo, South Korea: City of the Future?*, ATLANTIC (Sep. 27, 2014), <https://www.theatlantic.com/international/archive/2014/09/songdo-south-korea-the-city-of-the-future/380849/>; Richard Sennett, *No One Likes a City That’s Too Smart*, GUARDIAN URBANIZATION (Dec. 4, 2012, 1:00 PM EST), <http://www.theguardian.com/commentisfree/2012/dec/04/smart-city-rio-songdo-masdar> (“[U]nits of housing are not conceived as structures with any individuality in themselves, nor is the ensemble of these faceless buildings meant to create a sense of place.”). It seems that a city’s projects, if insufficiently attentive to social dynamics, psychology and related insights into the social dimensions of citizens, receive a mixed reception. See Wellington M. da Silva et al., *Smart Cities Software Architectures: A Survey*, 28TH ANN. ACM SYMP. ON APPLIED COMPUTING 1722–

Some claim technology—centric approaches inevitably will reduce the role of civic participation in municipal functions.³⁰² They argue that VGI and ICT, coupled with artificial intelligence, inevitably will supplant active forms of personal participation in community life.³⁰³ Once algorithms permeate all aspects of modern life, claim such pundits, regulatory operations will assume the form of algorithmic governance—digital decision-making substituting computerized processes for the role and judgment of human governance.³⁰⁴ Local governments are far from that state of play, because two-way communications and networking through social media remains in its infancy.³⁰⁵ In any event, coopting of placemaking by artificial intelligence will not happen in our lifetimes, as illustrated this way. Mr. Data, the USS Enterprise’s android, plays a violin solo during the “Sarek” episode of *Star Trek—The Next Generation*.³⁰⁶ Mr. Data informs guests that they may choose his performing the solo in the style of any of 300 different famous concert violinists he is programmed to imitate.³⁰⁷ Mr. Data has no personally-developed style through which to interpret the solo’s music, however, having no emotional connection to the melody, compelling him to mimic tonalities and interpretations of other musicians.³⁰⁸

Place, evoking authenticity, is viscerally rooted—not algorithmically fixed. Place cannot be replicated readily across community boundaries with uniquely-circumstanced occupants. While technology may consider many aspects of placemaking in determining locations’ desirability by heuristic analyses, technology cannot “deduce” the ideal composition of each place made. Volunteered geographic information, however expertly digitally digested and processed through algorithms, will never substitute for active citizen inputs and engagement in the local planning realm.³⁰⁹ More creative and consequential

27 (2013); *see also* ROBERT D. PUTNAM, BOWLING ALONE: THE COLLAPSE AND REVIVAL OF AMERICAN COMMUNITY 21 (2000) [hereinafter PUTNAM, BOWLING] (noting societies characterized by generalized reciprocity are more efficient than distrustful societies lacking frequent interaction among diverse peoples).

³⁰² *See* Tenney & Sieber, *supra* note 166, at 110.

³⁰³ *Id.*

³⁰⁴ *Id.* at 105.

³⁰⁵ Kleinhans et al., *supra* note 168, at 241.

³⁰⁶ *Star Trek: The Next Generation: Sarek*, (Paramount Pictures, television broadcast May 14, 1990). The piece performed is Brahms’s Sextet #1 in B Flat Major, Op. 18 (second movement). Mr. Data would want you to know that.

³⁰⁷ *Id.*

³⁰⁸ *Id.*

³⁰⁹ Kleinhans et al., *supra* note 168, at 244 (noting that to include the maximum number of participants, a range of online and offline engagement tools must be deployed).

solutions arise from local initiatives, generated by persons experienced in problem-solving at the fine-grained level and customized to local conditions.³¹⁰

Otherwise stated, place, not technology informed by artificial intelligence, is instrumental to building social capital and trust relationships, enabling individuals to connect with strangers and collaborate with them in civic organizations.³¹¹ Since civic orientation in government builds trust³¹² and allows otherwise isolated people to participate fully in a democratic system,³¹³ place, the locus of authentic experience, harbors mentoring and social networks across generations.³¹⁴ Injecting experiential, historic and local neighborhood knowledge into planning processes results in planning better suited to community preferences.³¹⁵ The public's experience in engagement processes colors its attitude toward and vision for local government.³¹⁶ Coupling genuine citizen participation with technology tools, and increasing capacity to integrate consequential, fine-grained knowledge of place into city land use policy and to temper the designs of private developers,³¹⁷ promises improved site-specific future land use planning decisions, irrespective of local government's embrace of placemaking discourse.

³¹⁰ See KATZ & NOWAK, *supra* note 32, at 9.

³¹¹ See PUTNAM, BOWLING, *supra* note 301, at 5–10, 13–15, 18; ROBERT D. PUTNAM, OUR KIDS: THE AMERICAN DREAM IN CRISIS, 207–19, 235 (2015) [hereinafter PUTNAM, KIDS].

³¹² See Dave Biggs, *How Community Engagement Can Restore Trust in Government*, PLANETIZEN (Sept. 8, 2016, 10:00 AM PDT), <https://www.planetizen.com/node/88483/how-community-engagement-can-restore-trust-government>.

³¹³ See PUTNAM, BOWLING, *supra* note 301, at 83, 140; PUTNAM, KIDS, *supra* note 311, at 115, 211, 218–20, 240; Kleinhans et al., *supra* note 168, at 240 (noting increasing capacity to engage “quieter voices” in participation).

³¹⁴ See PUTNAM, BOWLING, *supra* note 301, at 5–10, 196; PUTNAM, KIDS, *supra* note 311, at 206–13.

³¹⁵ Berman, *supra* note 138, at 2, 9.

³¹⁶ Specific to youth, inclusion in wider community-development efforts assures youth that they are taken seriously, their opinions valued. See Myrna M. Breitbart, “*It Takes a Child to Inspire a Village*”: *Re-Visioning and Redesigning Neighborhood Space with Urban Youth*, in GROWING UP IN A CHANGING URBAN LANDSCAPE 139–49 (Ronald Camstra ed., 1997); Debra Flanders Cushing, *Promoting Youth Participation in Communities Through Youth Master Planning*, 46 COMMUNITY DEV. 43–55 (2015). More broadly, certain citizens today, self-styled neighborhood advocates, question the execution of the zoning information-gathering process, enough so that some demand to accompany officials on their site visits subject to zoning applications. See Letter from Harvey Schulman & Neal Haddad to Mr. Craig Mavis, Phoenix Planning & Development Department (Nov. 27, 2017) (on file with the *West Virginia Law Review*). These citizens desire to observe first-hand, in real time, what officials witness in the field.

³¹⁷ See Berman, *supra* note 138, at 6.