PLANNING WEST

Spring 2020

FORWARD THINKING
SHAPING COMMUNITIES

Urban Planning & Artificial Intelligence

Good, Bad,
or Terrifying?

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PIBC PLANNING INSTITUTE OF BRITISH COLUMBIA

*FORWARD THINKING
SHAPING COMMUNITIES*

p.18

INSIDE

ON THE COVER
With the rise of smart cities,
it is important that planners
understand the implications of
artificial intelligence.

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The sky is a dark robin's egg blue and the sun is shining, adding to the warmth from the wood stove in the corner of the one room cabin I am isolating at this weekend. I am grateful to be unplugged from all the news and heartache of the global pandemic for just a few days. My off-grid cabin in Dezadeash, Yukon provides just the spot to relax, read, snowshoe, cross-country ski, and reflect on the last four weeks.

It is hard to believe it has been just four weeks since our PIBC Board met together in Prince George, networking with the University of Northern British Columbia's smart, thoughtful, engaged, and hardworking planning students. We had a fun evening at a local brewery and met the next day on campus for our regular Board Meeting, which included an update presentation by Dr. Mark Groulx from the UNBC School of Environmental Planning. Again, I am encouraged and excited by the work that is being done, and the emerging planners that are coming out of our four accredited planning schools in British Columbia.

And then wow – a lot has happened in the last four weeks. Most of us are working from home now (or in much changed work environments) and there are challenges keeping the work flowing, keeping focused, and keeping well during these uncertain times – whether you work in the public or private sectors.

There is stress on our communities as we modify our work to continue delivering services safely, respecting physical distancing, and trying to do our part in keeping the economic and social health of our communities strong. It is a challenge, but we are leaders of change. We are professionally oriented to consider the present challenges; to think ahead and plan a more resilient future; to engage with our communities; to draw in diverse expertise and knowledge; to work collaboratively to help chart a path forward.

What changes might we see in our cities and communities? As community builders, visionaries, designers, and agents of change we need to be talking about public transit, smart density versus overcrowding, public spaces, parks, roads and sidewalks, housing and health. These are just some of the topics and considerations in many of our daily practices now. But how does this global pandemic change how we think of these elements and plan our cities, communities and regions?

As we all deal with the immediate public health and economic crisis, and the potential aftermath it will leave for us to address, we will start to contemplate these and many other questions, while also ensuring our own resilience and wellbeing. I know, for me, I am grateful for the wilderness I can easily access from my home in Whitehorse.

And as an Institute, at PIBC we too are grappling with the current crisis and looking ahead strategically to what might come next. While we are adjusting our activities and operations in real time as these circumstances unfold, we continue to work to serve members and contribute value and support during these difficult times. We have had to transition our office administration and radically rethink or rework some of our activities – such as plans for this year's annual national planning conference in Whistler, as well as other typical PIBC events. We are looking to expand and refocus our ability to meet and deliver member professional learning and other key services virtually and remotely.

While we all physically distance and adjust, I encourage you to keep connected with your profession, your Institute, and fellow planning practitioners as we work to cope, adapt, and move forward. Please visit the PIBC website, watch for regular email updates from PIBC, and follow our social media channels to keep engaged.

You will find helpful information on PIBC's response to the current situation, updates on member services and Institute activities, and information on broader resources to help you manage professionally and personally. And we hope the continued delivery of many of our regular services and activities – including *Planning West* magazine – help you remain connected and professionally engaged despite the crisis.

On that note, I wish to extend big thanks and congratulations to guest editor Jada Basi RPP, MCIP and *Planning West* Editor Maria Stanborough RPP, MCIP for curating and delivering a fantastic issue of our magazine this spring. Looking at things like technology and its role and impact in planning is a valuable and timely topic.

Lastly, but perhaps most importantly, I encourage you all to keep well, stay safe, and take care.

Lesley Cabott RPP, MCIP

Capturing the evolution of WFH (Working From Home) during COVID-19 with the PIBC staff team @PIBCExecDir

COVID-19 and Your Professional Institute

I hope this message finds you well and taking care in these challenging and, in many ways, unprecedented times. At the emergence of the spring of 2020 we find ourselves facing an unexpected and far-reaching crisis with the COVID-19 coronavirus pandemic that has spread across the globe. It is touching almost every corner of our world – including right here in British Columbia and Yukon. On behalf of the Institute and myself, I wanted to take this quick opportunity to check in and touch base during this difficult period.

If you require assistance with any Institute or membership related challenges during this time, please reach out to us directly so that we might assist.

Most of the diverse, informative content and information you will read in this spring issue of *Planning West* magazine was written and curated prior to the substantial onset of the current outbreak. And we hope that, as always, it continues to engage, support and inform your planning practice, as well as perhaps providing some added elements of familiar consistency and normalcy during these uncertain times. The short, medium, and long-term impacts of the current pandemic will certainly provide significant challenges and material for the planning profession to work on, share, and consider over the months and years to come.

No doubt the current circumstances of the outbreak will have further changed and evolved by the time you are reading this, compared to when I wrote it. But nevertheless I wanted to be sure to let you know some of the steps we at PIBC are taking, as of this writing, to adjust to this new reality, support our collective efforts for public health, safety, and well being, while continuing to support and serve you, the members.

A few key highlights include:

• **Remote Operations:** The PIBC office is currently closed, however our entire staff team is continuing to maintain most Institute operations and member services while working remotely from home. This is expected to continue into April, and possibly beyond, based on appropriate official advice and guidance. During this time email is typically the best way to reach us.

• **No Close Encounters:** PIBC has discontinued all in-person meetings and events, including chapter events, for the time being. This is expected to continue into May, and possibly beyond – again based on appropriate advice and guidance. During this time we are continuing with most regular meetings by remote means, and will continue to deliver our regular online CPL webinars. We also continue to monitor the status of the outbreak as it may impact this year's annual conference in Whistler. We are further exploring options to provide remote access to additional learning and other member networking opportunities through our website and social media platforms during this time as well. Stay tuned.

• **Keeping You Connected:** PIBC will continue to provide regular updates to members through our email newsletters and website. You will find updated information about PIBC activities and operations, relevant professional practice guidance and resources, as well as information and links to information about the COVID-19 outbreak itself, public health information, and various government and other external resources. Please watch your inbox and visit the PIBC website for the most up-to-date information: www.pibc.bc.ca

We at PIBC will be monitoring the situation and adapting accordingly, while working hard to continue to be here to serve and support the membership. Additionally, we strongly encourage all members to be mindful and practice self-care. These are stressful and challenging times for many. While physical distancing may be a necessity, be sure to stay connected with family, friends, neighbours, colleagues, and your communities during this period.

If you are experiencing personal, economic, or other impacts from the outbreak, please be sure to seek assistance and support. Whether it's community support and resources, peer support amongst fellow planners, or other external support and direct aid. We are pleased to do our small part to help by providing information and links to a variety of resources – from professional resources, to government economic and financial aid information, and more – in our regular email updates and on our website.

Please take care of yourselves and each other, and we will certainly come through the current challenges. We are all in this together. Stay safe and be well.

Dave Crossley
Executive Director
@PIBCExecDir

OUTLINES

Technology is playing an essential role in how we connect on local, national and global levels

Notice some planning gold in the social media universe? Share it **@_PIBC**

What's Trending?

> **Cindy Cheung**, PIBC Communications & Marketing Specialist

More evident than ever, technology is playing an essential role in how we connect on an individual, local, national and global level, especially during dynamic and uncertain times when we need to take action quickly and on short notice. Take a look at the companies and organizations leveraging technologies to advance mobility options, First Nations education and smart city designs.

First Nations Technology Council
@FN_TechCouncil

The First Nations Technology Council's mandate is to support thousands of Indigenous peoples with comprehensive technology education programs over the coming years and to build a thriving Indigenous Innovation Ecosystem. The Indigenous-led organization works with over 150 Indigenous communities in BC, various governments, academic institutions, and "technology futurists" to empowered First Nations communities with the necessary skills and certifications to utilize technology for advancing their visions and meaningfully advancing reconciliation. For example, their most recent information sessions helped educate Band Social Development Workers on how technology can improve income assistance reporting.

www.technologycouncil.ca

FOUNDATIONS IN INNOVATION AND TECHNOLOGY

Smart Cities - Webinars, Podcasts & More
Future Cities Canada
@FutureCitiesCA

Future Cities Canada, a community solutions portal, offers a variety of resources for creating more livable and inclusive communities within "open" smart cities – from webinars to research papers to podcasts. Check out their website for ideas and inspiration on practical actions we can all take to use technology to connect and serve our communities in positive ways.

Latest podcast topics have included: "Who Governs Smart Cities" and how "Community Hubs Bridge the Digital Divide". Find these in "The Future Fixes podcast series" by clicking on the "Resources" page and typing in "podcast" in the search field.

https://portal.futurecitiescanada.ca/
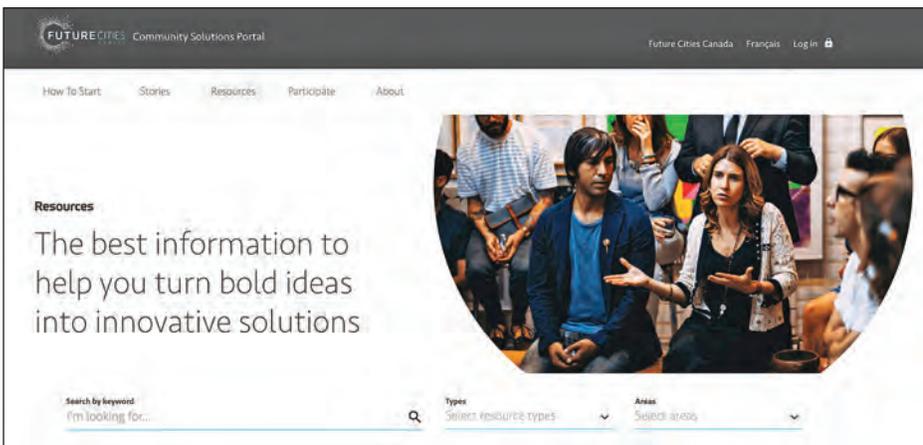
Moving in a Livable Region (MLR)
@MLR_BC

A consortium comprised of the Mayors' Council on Regional Transportation, TransLink, Metro Vancouver Regional District, academics, student organizations, and more, Moving in a Livable Region's goal is: "building a smarter livable region. Together."

Focused on improving and promoting Metro Vancouver's regional mobility and land-use priorities to the public and other stakeholders, MLR provides information and support for building an infrastructure that focuses on the health, economic development, equity, climate change, and resilience for a healthier region. Quick to act, in response to COVID-19, to help inform those who must move around during the pandemic, MLR launched an easy-to-understand infographic with tips on how people can use different modes of transportation as safely as possible during the crisis.

www.movinginalivableregion.ca

PLANNNG WEST CALL FOR SUBMISSIONS

Summer 2020:
Pivot – what planners have learned about planning in a quickly changing world.
Deadline June 15, 2020

Fall 2020:
Emerging Issues.
Deadline September 15, 2020.

Articles should be 1000-1200 words in length and in an unformatted, MS Word document. **Please note:** not all articles may be accommodated based on editorial decisions and the number of submissions received.

"There have been – and continues to be – many inspirational people that guide my commitment to my profession."

Yazmin Hernandez Banuelas at North beach in Haida Gwaii

Yazmin Hernandez Banuelas RRP, MCIP
Municipal Planner – Town of Sidney

> **Cindy Cheung**, PIBC Communications & Marketing Specialist

Sharing her energy, dedication, and enthusiasm as current Co-chair of PIBC's Vancouver Island South Chapter, we talked to Yazmin on how she found her way into the planning profession, her thoughts on disruptive technology, and how she balances work and life by integrating her hobbies, including one that spiced up her life.

You studied at UBC's School of Community and Regional Planning (SCARP) and have worked in both urban and rural planning. What brought you to Vancouver Island and Sidney?

Shortly after graduating from SCARP, I started working at Urban Futures with Andrew Ramlo RPP, MCIP. About five years ago, I embarked on a tour of the province in an effort to expand my skillset and also to find a way to apply my quantitative skills in a municipal planning role. Personally, I was searching for a community to call home. I gained great insights and experiences working for the City of Vernon, the Town of Smithers, and now with the Town of Sidney. I love being able to practice planning work in communities that are unique and different in their own right.

I first came to Canada to study high school on Vancouver Island at Pearson College (near Metchosin) and ever since I have had a fondness for the island. The opportunity to work on issues affecting a small coastal community brought me to Sidney, which is also in close proximity to major urban centres.

How did you become a planner? Was there a person or event that propelled you into the planning profession?

I'm not entirely sure that I purposely chose to become a planner. After finishing my undergraduate degree in Peterborough, Ontario, I was ready to come back to British Columbia and its mild winters. I always had an interest in communities and economic development and, as part of researching Masters programs, I found the School of Community and Regional Planning at UBC. I saw a program with wide areas of application and I went for it, not really even knowing that there was such a thing as a "planner".

There have been – and continues to be – many inspirational people that guide my commitment to my profession; from Nathan Edelson, Bill Buholzer RPP FCIP, Andrew Ramlo RPP, MCIP, and David Block RPP, MCIP, to many of my former classmates and colleagues.

How does technology help you as a planner? What is one disruptive technology you think will impact the planning profession?

Technology is a great ally in planning work, helping us reach, communicate, and engage with residents in diverse and timely ways. I think any application of disruptive technologies in the field of transportation will have major impacts to the planning profession: from parking management, personal travel and public transport planning to expanding options for "mobility as a service."

Personally, I would say my most used disruptive technologies are not the newest (wi-fi, cloud computing and smart phones). I am intrigued by the use of big data and how large corporations use it to understand and influence human behavior, but I find this particular technology a bit scary in its applications thus far. I myself don't use big data in my work but, like most people, I feel I am a target affected by such technologies.

Self-care and well-being are important. Do you have any special approaches or tips for dealing with stress and maintaining balance in life as a professional?

I try to incorporate my hobbies into my daily routine and make sure I get to spend at least one hour a day outdoors. Since I have a very busy, structured work life, in my personal life, I prefer to pursue unstructured activities that can morph and change with the seasons and respond to time constraints. I try to be flexible and not too rigid with the activities I take on, but I am very committed to making time for at least one of my hobbies each day. Some of them are quite simple and yet I enjoyed them tremendously, like walking my dog.

What's one new thing you've done lately that surprised you, and why?

I have been experimenting a bit with making tamales (steamed corn buns wrapped in corn husk stuffed with spicy stew) and incorporating different flavors and spices. So far, I have been more of a purist when it comes to Mexican cuisine, but I was pleasantly surprised by the Sega Wat tamales I made last weekend. I think I am ready to embrace the excitement of fusion cooking. ∎

The Role of Technology During the Global COVID-19 Pandemic

STAY HOME

/ Jada Basi RPP, MCIP GUEST EDITOR

What is a city, without people?

This is not a rhetorical question. It is a remarkable reality of cities across the globe and at home. The public realm has been hollowed out as the result of self-isolation, self-quarantine, and social distancing measures to address the public health emergency known as the coronavirus or COVID-19.

In this Spring 2020 issue of *Planning West*, we feature articles on emerging technological advances that are influencing community planning today and in the future. We brainstormed topics such as robots, drones, and data analytics. I thought we might poke fun at our archaic servers and the fact that most millennials have never seen microfiche let alone ever heard of it. I was hoping we could debate the moral value of e-permitting in our daily, ordinary lives as planners.

I feel a strong sense of how insignificant the original vision of this issue was given the sudden unfolding of a pandemic; at the same time I recognize that the intersection of technology and planning is more relevant than ever.

As I'm writing this article in mid-March, BC has the greatest number of cases of COVID-19 in Canada, and the number is climbing. Globally, the numbers are much higher. Sadly, we have lost members of our community. The aging population across BC, Yukon and Canada, in addition to vulnerable and at-risk populations, places us at considerable risk to the virus. This vulnerability is both an urban issue (population density) and rural (proximity to healthcare).

Rapid Adaptation

Institutions, businesses, and community organizations have quickly adapted to circumstance. Change was not a choice, it was a requirement. The Government of BC and numerous municipalities have declared states of emergency. The long list of evolving measures includes banning large gatherings; maintaining social distance (2 metres between people); closing public facilities/schools; and curtailing food and beverage establishments.

The US-Canadian border is closed with the exception of essential travel (e.g. goods movement). Some communities are taking inventory of large format industrial buildings to temporarily function as hospitals or healthcare manufacturing facilities. The general instruction to all Canadians is to stay home as much as possible.

In short notice, society has experienced a dramatic disruption which has led to rapid adaptation. Flattening the curve is now part of our lexicon. Change is not a choice, it is an obligation.

While the seriousness of COVID-19 cannot be underestimated by planners, we must not let it cloud our ability to be part of the solution. Indeed, many of us in the profession became planners because we believe in public service and are highly skilled at community problem-solving. Following are some of the ways technology made it possible for many of us to adapt during the pandemic:

- Remote Working
- Virtual Engagement
- Hope and Leadership

Remote Working

A detectable shift in work culture is offices reimagined as virtual settings consisting of emails, conference calls, video calls as well as accessing files via the cloud and other file sharing platforms.

Remote working can be challenging but it is a privilege. Nearly 41% of rural households do not have access to high-speed internet[1] and there have been widespread layoffs in several sectors. Many planners can conduct work remotely and utilize online tools like e-permitting to continue delivering [limited] services, which is one way our profession can help 'keep the economy going' during the COVID-19 pandemic.

However, when so many people started working from home, there was a 60% increase in broadband daytime home usage.[2] The unprecedented surge of users connecting over the invisible spheres of IT infrastructure has meant the broadband network is overloaded. The pressure stretched capacity thin, resulting in lower quality video and frequently dropped calls.

> → **TIP** Conference lines and video calls tend to fail at peak times and on the hour or half hour (e.g. 9am / 9:30am). Try scheduling calls at unusual times (such as 9:07am or 9:42am) to help avoid "crashing" the system.

As planners, we put considerable effort into bringing people together to facilitate dialogue on community issues. We often aim to attract as many people as possible to

events, and sigh at the thought of low turn-out. However, during the pandemic, our *new* goal is to space people out few and far between or disband in-person engagement activities altogether to prevent the spread of COVID-19.

Given the banning of large gatherings and social distancing measures, most communities have suspended consultation. Creative engagement alternatives are being explored where deemed appropriate, and where there is capacity and the bandwidth to meaningfully engage.

When connecting with people through technology, the ability to hear the other person's voice and/or see their facial expression is important (this also applies to remote working and connecting with colleagues). Virtual tools can enable this connection such as telephone/video conferencing, digital visual facilitation, and virtual focus groups.

> → **TIP** IAP2 Canada has resources to help planners and event organizers adapt public participation activities including how to engage with people experiencing heightened anxiety during the pandemic.

There are statutory hurdles with holding virtual meetings, as described by Young Anderson's timely bulletin on Provincial Options for Modifying Meeting Rules. At the time of this article, options are being explored to temporarily modify the Community Charter and *Local Government Act* to enable electronic local government meetings – an important consideration for planners to ensure we practice within our legal framework.

Hope and Leadership

Hope and leadership are essential ingredients for taking bold action for swift resiliency, as well as leading teams and communities through extraordinary times. Planners do not need technology to embody hope and leadership. However, technology may be relied upon for dealing with crisis, be it a pandemic, flood, fire, earthquake or the like. The COVID-19 pandemic has demonstrated that sometimes we must adopt technologies when we have no other choice but to do so.

As planners, we anticipate and plan for change. We will surely need to integrate this experience into our practice. I imagine planners will analyze the impact of this historic event for years to come, from emergency operations to public transit systems and high-density living.

We may reflect on land use flexibility to convert operations to overnight solutions. We can consider how to better address the needs of vulnerable populations, including persons experiencing homelessness or who are precariously housed. We should not underestimate the value of balconies and access to fresh air and natural light in a time of self-isolation, a common feature being challenged for energy efficient building design. We need to improve access to high speed internet in rural communities. We should evaluate our internal IT systems to be able to continue serving communities during unforeseen events. There is much to consider, once we have the space to catch our breath.

It is too early to tell if our actions will mitigate the current crisis. Early observations of rapid adaptation give hope that we can learn from our collective experience towards enacting positive, healthy changes to community planning. ∎

Jada Basi is a planning consultant with CitySpaces Consulting and is the chair of the PIBC Communications Committee. She can be reached at jbasi@cityspaces.ca

[1] Source: Rural Canadian Households, CRTC

[2] Source: Telecom networks deal with 'unprecedented' pressure as Canadians work from home, CBC News (March 20th, 2020)

Artificial Intelligence & Urban Planning

Good, Bad, or Terrifying?

/ Daniella Fergusson RPP, MCIP

"A rtificial intelligence" (AI) is an elaborate way of saying that someone programmed a computer to follow a set of procedures (an algorithm) and spit out a result. The scientific language surrounding AI makes it sound more sophisticated than it is.

Planners use algorithms every day. We follow the *Local Government Act, Community Charter*, development procedure bylaws, and other bylaws and policies. When we write zoning bylaws and official community plans, arguably, we are writing algorithms that the development community follows. The difference between a planner and artificial intelligence is intelligence. And, by intelligence I mean empathy, judgement, lateral problem solving, design thinking, creativity, context, and other grey areas that our grey matter is capable of.

With the rise of smart cities and enormous, unregulated databases of commercially-available personal information, it is important that planners understand the limits of AI and its role in discrimination.

AI "intelligence" is only as good as its source data and the parameters guiding its actions. Predicative policing offers a good example of

→ poor decision-making based on bad data. Predicative policing uses historical data on the time, location, and nature of crime to direct policing resources to places anticipated to be crime hotspots. AI reproduces the patterns that already exist in the data. As a result, rather than predict future crimes, the AI predicts policing bias based on historical policing behaviour.

In 2015, Toronto journalist Desmond Cole documented his experience of having been stopped and interrogated by police more than 50 times in Canada. His essay in *Toronto Life*, "The Skin I'm In," explains how Black Canadians are disproportionately targeted by a 70-year old controversial "carding" practice. Young Black men are 17 times more likely than a white person in Toronto to be stopped by police, and therefore are at much higher risk for arrest and imprisonment. This is done because of the current and historical bias against Black Canadians in policing.

Any AI system built on data gathered through methods that disproportionately target certain members of the community, will reflect back and amplify the pre-existing discrimination. For smart cities, this means simultaneously making certain populations both hypervisible to criminal enforcement and invisible to commercial products.

Self-driving cars, hands-free motion sensors, facial recognition technology, and more have all been documented not "seeing" dark-skinned people. The simultaneous hypervisibility/invisibility of dark-skinned people risks creating communities where machines judge people by their appearance with no human to appeal to. Even today

folks are automatically locked out of buildings, flagged for criminal activity, or run over by robot cars that can't 'see' them on the basis of nothing except the biases of the long-gone AI creators.

As planners, we should ask, "What problem am I trying to solve through data collection, surveillance, and AI?" Smart city product vendors often advertise their products, stating that sensors and software make urban life easier and seamless for individuals by optimising the deployment of public services.[1] Examples of services targeted for a seamless experience include: single-pass on-demand multi-modal mobility systems (shared bike to bus to shared car), telemedicine and remote patient monitoring, school admissions, rental applications, building automation systems, digital tracking and payment for utilities like waste disposal and recycling, and multi-agency law enforcement and surveillance. Joy Buolamwini, AI researcher at MIT Media Lab, responds by asking, "Who are we optimising for?" Who is the "we" and the "our" when talking about smart, seamless urban lives? Does that seamless, optimized future include people who are currently and historically excluded from city-building, such as people with disabilities, people living in poverty, or dark-skinned people?

More broadly, we need ask whether people have consented to data collection and whether they have access to and control over the data collected about themselves. Google's Sidewalk Labs, which has been hired by Waterfront Toronto to develop a smart city in Quayside, has stated that it does not intend to use facial recognition

As planners, we should ask, "What problem am I trying to solve through data collection, surveillance, and AI?"

in the public realm. But it does intend to monitor in other ways. Two points most relevant for this discussion are: 1) the lack of opt-in/opt-out for surveillance, and 2) the development of unfathomably large personal information databases.

Sidewalk Labs and its subsidiaries/ spin-offs intend to collect data on who goes where, when and how to optimise the delivery of transportation, power, utility, housing, entertainment, health, and security services. A few examples include:

• CommonSpace, a Jan Gehl-inspired "public life study" mobile app that allows groups of people to record data about who they observe in a public space and map that data to better understand behaviour

• Collab, a public engagement online tool for crowdsourcing what kinds of events should happen in public space

• Coord, an urban mobility tool designed to create seamless, multi-modal trips, including bike-sharing, tolls, parking fees, EV-charging station reservations and more

• Flow, a traffic modeling tool that shares city parking and transit ridership information with private companies to solve issues like Ubers dropping people off at bus stops.

Sidewalk Labs' Replica tool is the most concerning. Replica models how individual people move through a city by using "de-identified" mobile phone location data obtained from commercial databases. Many folks, likely including yourself, do not understand the extent to which your

mobile phone location data is tracked and monetized. Most people's smart phones record and share where people travel and when. Aggregating this data creates a pattern of how individuals live, who they meet with, and more. It reveals home and work addresses, children's schools, affairs, illicit drug use, and other sensitive data. By its nature, the data cannot be anonymous, and no one really knows what "de-identified" means.

Sidewalk Labs is proposing a privately-managed urban environment on public land where people are surveilled and notified about the surveillance by signs. To opt-out, one would have to avoid the area completely, or at least leave the smart phone at home. In this tracked neighbourhood, how welcome is a Black man going to feel who has been carded over 50 times? How safe is a victim of domestic violence and stalking going to feel, knowing that her every movement is being tracked in a database stored and accessed by who-knows-whom? Who is disproportionately helped or harmed by the data collection? How can people possible consent to the data collection? Does withholding consent mean being effectively banned from participating in civic life?

As planners, we need to see how surveillance discriminates, and how AI can amplify that. Jane Jacobs writes about the importance of having "eyes on the street." However, a community regulating itself by neighbours looking out for one another is not the same as public surveillance designed and led by the police or by a private ad-tech company. In the former, neighbours have

agency to discuss, create, and negotiate the rules and norms that are being enforced. In the latter, enforcement is being done to people, with little to no recourse when it happens in an arbitrary, excessive, or unjust way.

Outsourcing human "eyes on the street" to a network of sensors and algorithms has a good chance of resulting in easily justifiable discriminatory practices regarding who is allowed to be in public space. Planners need to be aware of our own history of planning which used to justify discriminatory practices, such as racial restrictive covenants, redlining, and nuisance/ticketing programs that target specific communities. Before recommending projects involving AI, we should question is AI even needed, and if it is, who audits it and governs it? ∎

Daniella Fergusson is a Senior Planner at City of Powell River and lifelong technology nerd. She has formerly served as Vancouver City Planning Commissioner, Director of the BC Chapter of International Association for Public Participation (IAP2), Board member of the Canadian Institute of Planners, and Co-Chair of the CIP Social Equity Committee.

[1]In case you're curious, check out all the uses of 'seamless' and 'optimization in this McKinsey report: https://www.mckinsey.com/~/media/mckinsey/industries/capital%20projects%20and%20infrastructure/our%20insights/smart%20cities%20digital%20solutions%20for%20a%20more%20livable%20future/mgi-smart-cities-full-report.ashx

TransLink Tomorrow –
leveraging transportation innovations for Metro Vancouver

/ Graham Cavanagh

TransLink, Metro Vancouver's public transportation entity, recognizes that as a transit provider and a regional transportation authority, it can both shape and be shaped by mobility innovation which is happening globally. Therefore, TransLink is taking a two pronged approach to considering mobility innovation that both addresses the short and medium term, and prepares for more profound changes in the long term.

Transportation technology is evolving rapidly, bringing new opportunities and challenges, and changing how we move and live. Many at Translink believe the future of transportation will be: Automated, Connected, Electrified and Shared (ACES).

Automated vehicles are already being tested in cities around the world. Advances in computing and sensors are increasingly putting robots in the driver's seat. And large companies – from Google to GM – are banking on a future of self-driving vehicles. In two decades, most passenger vehicles sold in North America will be capable of self-driving.

Connected vehicles of all types will be able to communicate with each other, potentially increasing safety and convenience. By 2025, it is expected that all new automobiles will be capable of making electronic contact, in some way, with each other and the infrastructure around them.

Electrified: When the CEO of Shell started driving an electric car, even electric vehicle skeptics did a double-take. Cheaper to operate, with smaller carbon footprints, electric vehicles are going mainstream. That goes for bikes, cars, trucks, and buses. By law, all new vehicles sold by 2040 in British Columbia must have zero tailpipe emissions – meaning that electric cars will soon be the norm.

Shared: Worth over $1 billion per year, Canada's sharing economy is on the rise. And shared transportation is a big piece of the pie. Why own when you can rent? People are increasingly choosing to move around using shared transportation services instead of personally-owned vehicles. Shared scooters, bikes, and cars are starting to become common in many cities around the world.

In 2015, TransLink founded *Translink Tomorrow*, a cross-departmental program to develop solutions for a better transportation future. TransLink Tomorrow is a commitment to continuously explore, test, and implement innovative ways to improve mobility in Metro Vancouver. It is also a commitment to a more open and nimble approach to collaborating with industry, entrepreneurs and academia. Working together, staff can more quickly surface worthwhile new ideas and technologies to:

- enable seamless and efficient door-to-door mobility for people and goods
- promote safe, healthy, clean, and compact communities
- ensure affordable and equitable access for all

From battery electric buses, accessible fare-gates and on-demand micro-transit (less than 20 passengers), TransLink is always looking for new, better and more cost-effective ways to keep the region moving forward.

Some of the innovative demonstration projects explored by TransLink to date include:

- partnering with Evo and Modo carshares and MoBi bikeshare services onto a single transit pass

Transportation has been evolving rapidly over the past decade and will likely continue to do so – informed in part by growing troves of data, technological advancements, and new business models.

- battery electric buses through a partnership with the Canadian Urban Transit Research & Innovation Consortium (CUTRIC), the Government of Canada, and BC Hydro
- a carpooling campaign with Poparide, a ridesharing app and program
- an artificial intelligence (AI) bus pilot project with 70-95% accuracy improvement
- dockless bikesharing[1] at UBC;
- universal fare gate access program using RFID cards
- transportation hubs that will offer Modo and Evo carsharing vehicles as a first/last mile options to transit stations
- an on-demand shuttle service, first piloted on Bowen Island and anticipated to expand to other locations across the region.

TransLink has also been playing an active role as the regional coordinator for the introduction of ride-hailing services such as Uber and Lyft to enter the market in Metro Vancouver. As part of this, TransLink brought together all the municipalities in Metro Vancouver and neighboring Fraser Valley and Squamish Lillooet regions for the creation of a single intermunicipal business license (IMBL) for ride-hailing which streamlines regulations across the broader region.

The Province of B.C. has recently updated legislation to allow for micromobility devices (e.g. e-scooters, skateboards and self-balancing devices) to be piloted on public roads. This new law opens the doors for devices like dockless electric scooters and e-bicycles to enter the market. Discussions around demonstration projects in municipalities are underway.

Although these devices may provide additional and fun options for people to travel, it is also important to consider the potential challenges such as parking, rebalancing and charging devices, and the safety of users. Through multi-stakeholder partnerships between TransLink, the municipalities and private operators, the region may integrate these innovative new modes of travel to complement existing services and mitigate disruptions. For example, there are electric scooter parking docks with built-in electric charging powered by solar panels that may work in the regional context (e.g. Swiftmile in Austin, TX).

Transportation has been evolving rapidly over the past decade and will likely continue to do so – informed in part by growing troves of data, technological advancements, and new business models. With a view to the long term, TransLink is leading the development of *Transport 2050*, the regional transportation strategy for Metro Vancouver for the next 30 years. *Transport 2050* will address emerging issues associated with innovative mobility solutions, including:

- advancements in battery technology for more electric vehicles
- sharing made easier by the prevalence of smartphones and mobile devices
- business models that focus on selling trips and rides rather than privately owned vehicles
- early explorations into uncrewed aerial transportation (i.e. drones) for movement of both people and goods.

Transport 2050 has been TransLink's largest ever public engagement process with 158,575 conversations in 7 distinct languages at 315 events in 27 municipalities in Metro Vancouver. Additionally, there were 31,682 survey responses with 4,026 ideas submitted by the public to inform this process.

From those ideas, TransLink learned that people are excited about future innovation but also want to know the key issues are being addressed – congestion, transportation options, safe places to walk and bike, as well as transit oriented and affordable housing. People want a transportation system that is efficient, cost-effective and environmentally friendly. Phase 2 engagement launches in spring 2020, and TransLink will be asking the region to help consider trade-offs between different possible approaches for the future of transportation.

There are many uncertainties associated with planning the region's transportation for the next 30 years, but what Translink knows so far is that bold action is needed. Priorities for phase 2 will include further exploration into safe pedestrian and bike travel, expanded investments in transit, affordable development around transit stations, and more efficient, cleaner movement of goods and people. Translink hopes that public participation and a multi-stakeholder process, will help to achieve sustainable, healthy, efficient and accessible transportation options for all. ∎

Graham Cavanagh is a Senior Planner, New Mobility Policy & Strategy at TransLink working on policy and strategy for the 30-year vision 'Transport 2050,' leading the New Mobility Lab academic research engagement program, and supporting various other projects and initiatives.

[1]Dockless bike sharing systems allow for customers to access bicycles that may be picked up and dropped off at any location (using GPS) without a formal docking location.

Digital Technology Supercluster: technology to support urban planning

/ Sue Paish, CEO, Digital Technology Supercluster

What do Elkford, Kimberley, Kaslo, Rossland and Castlegar have in common? Beyond their scenic mountain settings and resource sector pedigree, these five Columbia Basin communities were the focus of a recent Canadian Institute of Planners (CIP) climate change case study that assessed climate change vulnerabilities, risks and opportunities.

The study also revealed another commonality: all five BC communities included water management among their top climate change planning priorities, with four of them ranking the issue as their number one concern. Wildfires and other forestry issues were likewise listed repeatedly.

The CIP study engaged the Digital Technology Supercluster as part of its research team. The BC-based consortium is one of five across Canada selected to share in $950 million dedicated to the federal Innovation Supercluster Initiative.[1] The project is leveraging BC's leadership in digital tech to position Canada as a global hub for innovation.

The Supercluster is a collection of organizations that collaborate to develop world leading technologies to power the digital transformation of business and society while delivering economic growth across Canada. Working together, and overseen by a non-profit organization, Supercluster members propose projects that will deliver products and platforms to solve some of the biggest issues in Canada.

The Digital Technology Supercluster is connecting small businesses and entrepreneurs with medium and large companies, public sector organizations and universities to develop tech-based solutions to big challenges, different from and better than any single organization could develop on

Sue Paish, CEO of the Ditigal Technology Supercluster, announces 14 new projects in January 2020

The Supercluster is a collection of organizations that collaborate to develop world leading technologies to power the digital transformation of business and society

its own. In less than two years, more than 280 Members and Associates have joined the Supercluster, with dozens more applying every month.

The Supercluster reached out to organizations of all sizes and descriptions to ask about the most pressing challenges they face. Water management, forestry planning and development concerns echoed across British Columbia and Canada. This feedback is informing the Supercluster's work with its Members.

The Earth Data Store (EDS) project[2] is a prime example of an application that may support planners. As satellite imagery becomes increasingly widespread over a broad range of applications, from forestry and agriculture to city planning, this digital platform will display geo-spatial data on visual interactive maps that will allow urban planners to see how regions are evolving over time. The aim is to provide a visual tool to more easily identify areas of need.

According to William Parkinson, technical product manager of software engineering with Vancouver-based UrtheCast — one of six EDS partners — the platform "will provide unique capabilities to guide city growth, environmental sustainability, and respond to disasters such as forest fires or earthquakes."

By identifying factors such as population densities, roads under construction, and parks and public areas that need servicing, Parkinson explains, EDS tools can be used to examine historical trends and current patterns. These patterns can help planners

determine where communities are at risk for imbalances between infrastructure and community need, and identify mitigation strategies.

In short, the EDS has enormous planning potential. With forecasting as its ultimate goal, the project will increase confidence in where, how and what we build.

The Fresh Water Data Commons (FWDC) project[3] offers another opportunity for local governments. Canada lacks a single common approach to measuring, defining and leveraging data on the health of our myriad of bodies of freshwater. Concurrently, the global supply of this precious resource is under constant threat from human and industrial use, and from growing pressures fueled by climate change. Water consumption is predicted to rise 85 percent by 2030, and drive demand that will outstrip supply by more than 40 percent.

Monitoring water use and supply is essential for overcoming these challenges. Collecting regional data can provide a real-time view of what's happening, as well as help to forecast, predict and plan. The FWDC's goal is to develop a platform for harnessing all of the water monitoring data from an entire river basin to better understand the health of the surrounding ecosystem.

The Columbia Basin is where the project will start. This 80,000 square kilometre area presents a diverse set of data types and monitoring conditions owing to varied geographies ranging from remote areas

far from the grid, to locations with large industrial users of water.

Data, monitoring, and water management systems from municipalities, industry, regulators, and First Nations communities across the basin will be connected, and their information stored centrally in the cloud. A network of low-power, low-cost sensors will deliver real-time data on water quantity, quality, climate and precipitation, while bio-monitoring data will build an understanding of the relationship between water quality, microorganisms, and active industries.

All of this will provide a broader and more complete data set for analyzing the entire basin in real time and, in turn, mitigate the risks to regional water access.

According to Pilar Portela, the president of Astra Smart Systems Inc. — one of six organizations involved in the project — the FWDC platform will also allow for scenario testing, and the addition of open-source materials such as documents uploaded by researchers and scientists.

"Some potential areas where the project could assist in planning and development decisions include where to allow new development permits, new business permits, expansion of existing development and or businesses, especially those that are water use intensive. It can also aid with mitigation and risk management on both flooding and scarcity," Portela says.

Other Supercluster projects will have a more nuanced effect on urban planning, such as the Intelligent Network for Point-of-Care Ultrasound project.[4] It costs about

Image from the Fresh Water Data Commons Project

The FWDC's goal is to develop a platform for harnessing all of the water monitoring data from an entire river basin to better understand the health of the surrounding ecosystem.

$20,000 to transfer a patient from a rural setting to an urban center for urgent diagnostic imaging, while patients themselves are out of pocket on several levels when they must travel, often for hours by ferry or by car, for ultrasounds, especially first trimester obstetric ultrasounds. This project will combine machine learning, handheld ultrasound devices and a cloud-based platform to provide access to ultrasound in remote and rural communities.

The Autonomous Systems Technician (AST) project [5], meanwhile, is training under-represented groups, such as Indigenous peoples and women, to install and maintain the remote telecom systems being implemented by the resource sector. Both the Ultrasound and AST project are working to make remote and rural development more viable and sustainable by improving access to effective health care and fostering job growth.

On that note, a final question: what do sustainable development, job growth and environmental stewardship have in common? Beyond being essential to a prosperous future, they are all key elements of the Digital Technology Supercluster's mission: to offer technological tools to help urban planners secure the physical, economic and social well-being of urban and rural communities across Canada and around the world. ∎

Sue Paish is the CEO, Digital Technology Supercluster, as well as the Chair of the Business Council of British Columbia, and former CEO of Life Labs Medical Laboratory Services.

[1] For more information on all the superclusters, see **https://www.ic.gc.ca/eic/site/093.nsf/eng/00008.html**

[2] **https://www.digitalsupercluster.ca/programs/data-commons/earth-data-store-2/**

[3] **https://www.digitalsupercluster.ca/programs/data-commons/fresh-water-data-commons/**

[4] **https://www.digitalsupercluster.ca/programs/precision-health/intelligent-network-for-point-of-care-ultrasound/**

[5] **https://www.digitalsupercluster.ca/programs/capacity-building-program/autonomous-systems-technician/**

Urban Planning in a Technological Era:
Perspectives from Environmental Psychology

/ Lindsay J. McCunn PHD

Photo by Elaine Casap and Robin Worvall (left) on UnSplash

We are living in an innovative technological era and cities are, as ever, busy, overstimulating places to be. And now, they're smart. Information and communication technologies have been woven into the urban fabric and offer people opportunities to use mobile devices to stay connected in a variety of ways—to the locations of public events, to information on modes of transportation, and to each other.

Environmental psychologists examine how advances in technology affect human perceptions of, and relationships with all environments, including urban settings. It is important that our research happens alongside the work of planners to explore and test how cities can be adapted to changing psychological needs with respect to environmental stimulation and restoration.

In 2005, the American Psychological Association (APA) reported on a number of psychosocial and health-related issues associated with city living. Many of these issues have been linked to the physical environment, such as excessive noise, crowding, urban decay and disorder. Since then, additional research points to conflicting evidence about how some technologies are affecting us socially.

Although more loneliness has been self-reported among heavy social media users, other studies have found that using social media can decrease loneliness for highly social people. It would seem that the two perspectives on how humans are affected by social technology are not necessarily mutually exclusive. The *displacement hypotheses* states that loneliness can be associated with social internet use if people ignore or reject in-person relationships or activities in favour of spending time online. In contrast, the *stimulation hypothesis* posits that technology can aid in minimizing loneliness if it augments existing relationships and affords opportunities for new ones to form.

Such diversity in understanding how people are socially adapting to more technology in their lives makes way for the applied discipline of environmental psychology. Many environmental psychologists study the extent to which simple stimuli (like light and sound) and complex stimuli (like the layout of a building and aspects of social interaction), affect our perceptions and memories of places.

Cities are designed to afford a multitude of simple and complex stimuli for people to experience as they work, learn, and play, with or without mobile technology. Often, green spaces are planned into urban areas to afford opportunities to socialize with others (perhaps through the use of a phone or a laptop if not in-person) or to find solitude and connect with nature.

When we study the role of urban parks in peoples' lives, we find that they often provide an important avenue for spontaneous social contact and relationship-formation between neighbours. Immigrants who have been asked to describe their impressions of urban green spaces report having formed positive attachments to parks as places to affirm their identity in a new city. Community gardens are another type of green space that can facilitate social bonding—and this can sometimes result in a reduction of loneliness.

These positive outcomes seem to occur when urban green spaces are attractive and kept up well. Indeed, when they are ill-maintained, community members can feel an erosion of social cohesion and their perceptions of safety.

Of course, people do not always wish to be in the company of others. Today, our ability to alternate between being alone and being engaged with others is made more complicated with the added layer of mobile connectedness. Therefore, one of the roles of the modern city is to ease our choices in where to be alone, and where to be social.

Given the negative health effects of urban crowding and overstimulation, as well as excessive noise and poor air quality, creating and maintaining urban spaces dedicated to mental restoration and reflection may be a key role of urban planning. Kaplan's *Attention Restoration Theory (ART)* may be particularly important for city planners to understand and apply to urban space.

ART describes nature as inherently fascinating to humans. Nature captures our attention in an involuntary way that requires relatively little cognitive or physiological effort. Taking a break from looking at, and thinking about, work tasks, social scenarios, and technological devices can help us feel as though our attention has become restored. The effect is quite significant if we take that break in nature.

A number of experimental studies reveal the stress-reducing power of natural stimuli when compared to the effects of built environments. Looking at nature has been shown to improve our mood and concentration, and people tend to prefer to walk in a forest to restore their attention rather than an urban centre.

Exposure to green urban environments has also been shown to make the demands of urban life seem more manageable. When we live in buildings without nearby trees and grass, we tend to understand our own problems to be more severe, less soluble, and more longstanding than those who live in greener areas.

Such findings relate to the *biophilia hypothesis* — the notion that humans have an innate connection to, and preference for, organic shapes and patterns. Given the growing number of people who reside in urban environments around the world, today's cities should include many locations and opportunities for people to disconnect from technology and achieve cognitive restoration from the bombardment of everyday stimuli.

As planners strategically incorporate natural elements into city spaces, environmental psychologists study the extent to which nature affects psychosocial attitudes and behaviours in concert with mobile technology. This collaboration stands to yield healthier, greener, and socially sustainable cities around the world for years to come. ■

Lindsay J. McCunn is a Professor of Psychology at Vancouver Island University and the Chair of the Environmental Psychology section of the Canadian Psychological Association

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URBAN LANDSCAPES IN HIGH-DENSITY CITIES
PARKS, STREETSCAPES, ECOSYSTEMS

by Rinaldi, B.M., and Y.Y. Tan (Eds)
2019. Basel: Birkhauser Verlag GmbH. PP: 293. ISBN 978-3-0356-1720-7.

Reviewed by Julian Dunster PhD, RPP, MCIP
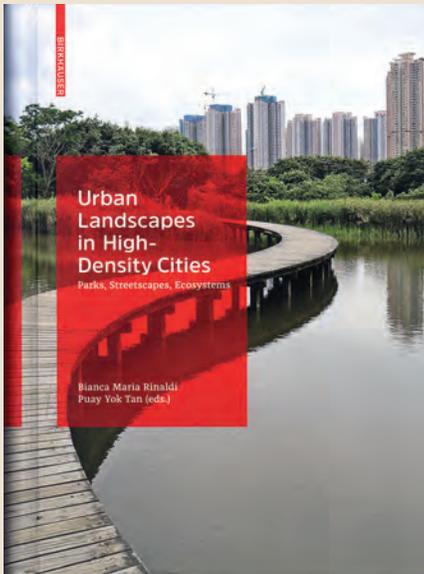
Urban Landscapes in High-Density Cities is a collection of essays dealing with the complexity of city design and nature. It is a comprehensive book with worldwide coverage of historical development patterns, contemporary design ideas, practical problems, and the socio-cultural complexity of integrating the many competing demands on a finite land base within city areas.

The book is divided into five main parts: Meanings and Identities; Landscapes as Infrastructure; Landscape Forms; Landscape Planning and Assessment, and Emerging Landscape Themes. My initial reaction, after several days of reading, was that it is very academic text. But within that context there is an immense amount of useful material, from concepts and ideas, to case studies, reviews of what did or did not work, and how we might use those to improve.

Many of the issues discussed arise in routine planning issues across Canada. How to design a livable city that is dense, compact, livable and yet still has green space with functional ecosystems? There is considerable debate about the inevitable tensions between private and public spaces, ownership, access rights and the way in which land uses change over time, and how that creates benefits for some and losses for others.

The historical development discussions show that none of these issues are new. There are also some useful metaphors in the material. For example, the idea that urbanization is like an oil slick spreading across water, with no attachment to its locality, is a powerful image. And the concept that Singapore has deliberately developed landscapes in categories such as "worlding", "everyday", and "nevertheless" is an interesting typology that is surely found in many other places by design or default.

The concept of a city as a porous place deals not only with the need to manage water effectively, but as a concept about how we might design streets, open and public spaces to be more than mere gaps in the built form. Using open spaces to link up areas of outdoor living - places to sit, pause, reflect, and commune with oneself, friends, and nature is a recurrent theme.

The essays bring in the debate about what is nature and how it is defined: as a fully functional ecosystem or a remnant with some but not all parts working. Another interesting concept then arises is that of using open spaces to promote ecological healing, though clearly this can be in several forms, such as atonement for what was lost, tokenism as a small but demonstrably inadequate offset, or larger scale regional efforts to try and restore some semblance of ecological order at larger scales. Case studies are used to illustrate all of these.

Woven into the work is the underlying unease that climate change will require us to radically rethink our experience to date, and the idea of resilience. Given the uncertainty about climate change, and whether it means hotter days (droughts, fires, water shortages), wetter days (floods), sea level rise, and mass migrations, designing a resilient city is clearly a difficult task.

We so often face fragmented development approaches that the challenge of implementing what we feel today's societal goals should be when so many historical and emerging constraints occur is challenging. Many of the case studies emphasise the need for a high if not extraordinary level of collaboration in order to be successful.

Overall, this book is a goldmine of ideas, concepts, case studies and retrospective assessments of what we might use to design better urban landscapes. Despite its academic style, it is worth reading if only to pull out the many nuggets that might help to improve planning and design in other areas. ■

RAR Spawns RAPR
Update to Riparian Areas Protection Legislation

After November 1, 2019, planners dealing with development in riparian areas that are subject to the *Riparian Areas Protection Act* (formerly *Fish Protection Act*) (RAPA) must reckon with the new Riparian Areas Protection Regulation (RAPR), which has replaced the Riparian Areas Regulation (RAR). In this update, we attempt to describe what has changed, and what has not, in the provincial government's expectations of local governments.

The main differences going forward are:

1. that qualified environmental professionals are allowed to address "undue hardship" in their assessment reports

2. the Ministry of Environment and Climate Change will provide a copy of the assessment report that the developer's qualified environmental professional (QEP) has provided to MOE (if the Ministry has not rejected the report) instead of any other form of "notification"

3. assessment reports will "expire" five years after the copy is provided to the local government.

Unfortunately, RAPA and RAPR continue to reflect serious deficiencies in Ministry of Environment's (MOE) understanding of the development management toolkit of B.C.'s local governments.

First of all, some qualifiers. The RAPR is only of relevance to regional districts (listed in RAPR) that the provincial government has designated as containing significant habitat for migratory fish. Secondly, the RAPR is not of concern in relation to any development that is the subject of the habitat degradation provision, an authorization issued under s. 35(2) of the Fisheries Act (Canada).

Before addressing the detail in RAPR we'll mention a couple of issues that have vexed planners attempting to comply with RAPA legislation. Well before the *Fish Protection Act* was passed, B.C. local governments were enabled to use certain regulatory tools for managing development in all types of environmentally sensitive areas, including riparian areas: zoning bylaws, development permit area designations and guidelines, and "development approval information" (read: environmental impact assessment) requirements.

Further, local government powers could be exercised in respect to all types of development, including institutional and agricultural development (the latter subject to the *Agricultural Land Commission Act and Farm Practices Protection - Right to Farm - Act*).

With the enactment of RAPA, local governments were for the first time obliged to exercise at least some of these powers in relation to commercial, industrial and residential development. They were not prevented from exercising them with respect to agricultural and institutional development, but they were not obliged to do so. As a result, some local governments have mistakenly believed that habitat protection tools cannot be exercised in relation to types of development not mentioned in RAPA, i.e. agricultural and institutional.

The second troublesome issue arose from the province's choice of regulatory approach. Unlike legislation like the *Agricultural Land Commission Act* and the *Environmental Management Act* that is directed at the activities of landowners, RAPA is directed exclusively at local governments.

Local governments complied with RAPA by putting regulations in place to protect and enhance riparian areas. Subsequently, compliance issues are between the landowner and their local government. The provincial government is without authority or responsibility when it comes to enforcing the local standards that have been enacted in response to RAPA, and this has also been the source of confusion.

The new RAPR as a "directive" issued by the provincial government elaborates on the two options for riparian area protection and enhancement that are mentioned in RAPA: (1) the zoning bylaw option and (2) the "meet or beat" option, involving the use of bylaws and permits under Part 14 of the *Local Government Act*.

/ **Bill Buholzer** RPP, FCIP **& Guy Patterson** RPP, MCIP

Conceptually, the new RAPR contains detail on the protection/enhancement standard that the provincial government wants indirectly to achieve. However, the "zoning bylaw" option is still a non-starter because, while zoning bylaws can regulate land use, and the siting, size and dimensions of buildings and structures, they cannot address vegetation removal or soil disturbance.

Vegetation removal and soil disturbance are not "land uses," according to well-settled case law. This makes zoning bylaws ill-suited to regulate many of the kinds of "development" the Province has instructed local governments to regulate for riparian areas.

Be that as it may, RAPR forges ahead by providing two sub-options for a zoning bylaw approach to complying with RAPA: approval-based schemes and rules-based schemes. Each scheme relies on the preparation of a riparian area assessment and identification of streamside protection and enhancement areas (SPEAs) – familiar features of the now-repealed RAR.

Planners attempting to draft such schemes as described in RAPR would be well-advised to consult legal counsel, because even if zoning bylaws could address vegetation removal and soil disturbance, it is questionable whether the zoning power in Part 14 of the *Local Government Act* can properly be exercised so as to include the delegation of discretion to consultants (i.e. QEPs) and bylaw administrators that is described in RAPR.

Before leaving the "zoning bylaw" option it should be mentioned that RAPR contains, for the first time, acknowledgement by the provincial government that in some circumstances, encroachment of development into SPEAs is unavoidable, either because of prior development or due to parcel configuration. RAPR permits a QEP preparing a riparian area assessment to incorporate such considerations under the rubric of "undue hardship."

Unfortunately, the definition of undue hardship in RAPR does not include situations where the potential development permitted by the applicable zoning bylaw

cannot be achieved without encroaching into a SPEA. Local governments remain between a rock and a hard place in relation to such situations, which could only be eliminated by reducing development rights on the parcels in question by amending the zoning bylaw for these areas.

Still lacking from the provincial government's approach to riparian area development is the authority for local governments to restrict development rights associated with riparian parcels by development permit condition (as is permitted for hazard lands DP areas) to enable full protection of SPEAs.

Development permit area designations, guidelines and permit conditions are still the only plausible means of satisfying the riparian area protection and enhancement mandate. Under the "meet or beat" option, a local government has complied with RAPA if the municipal council, regional district board or local trust committee is of the opinion that its bylaws and permits provide a level of protection and enhancement that is comparable to or exceeds the level indicated in the provincial directive (RAPR).

The path of least resistance for most local governments has been to incorporate riparian area assessments and QEP certifications into development permit area designations and guidelines, with QEP recommendations becoming development permit conditions.

In some cases, local governments have also exercised their powers to require "development approval information" in the form of a QEP report, under s. 485 of the *Local Government Act* which confers broad authority to require local impact assessments. This was originally enacted as part of the *Fish Protection Act*.

This would appear to remain, under RAPR, a reasonable course of action, though it is not free of flaws, including a potentially excessive delegation of discretion and authority to third-party professionals and to the Ministry of Environment and Climate Change if the procedures in RAPR are followed closely. ■

Bill Buholzer and Guy Patterson are lawyers at Young Anderson Barristers and Solicitors in Vancouver.

IN THE COMING MONTHS, PIBC IS RAMPING UP TO GIVE YOU MORE ONLINE CPL OPTIONS!

SAVE THE DATES !

Local Government, Legal Obligations and Public Engagement in the Age of COVID-19
Wednesday, May 27th

This timely webinar will explore the legal requirements of holding virtual council meetings, committee meetings, public hearings, public consultations, and what local governments should consider as they adapt processes and strategies in response to COVID-19.

3rd Annual Webinar Recognizing National Indigenous Peoples' Day Theme: First Nations Youth Engagement & Climate Action
Wednesday, June 17th

Learn innovative strategies for engaging First Nations youth on climate issues.

Affordable Housing, Integrated Design & High Performance New Construction
Date TBA

Presented in Partnership with BC Hydro

Discussions on affordable housing and keeping costs economical while equally considering the environmental implications, design/livability issues and the Integrated Design Process (IDP).

Climate Action Update: Case Studies from BC
September 25th

Local case studies on climate action. Topics include: Clean BC Report, Step Code, Micro-mobility, Rain City Strategy and Green Infrastructure, and more!

Please visit the PIBC website for current webinar information, registration, and the latest details on other CPL webinar offerings.

Photo by Christina Wocintechchat on Unsplash

PIBC BOARD NOTES

On **November 2nd, 2019** the PIBC Board of Directors met in Vancouver, BC

It was acknowledged that the meeting was taking place on the traditional territories of the Musqueam, Squamish and Tsleil-Waututh First Nations.

PRESIDENT

Lesley Cabott RPP, MCIP provided an update on various activities, including highlighting the recent in-person meeting of all the local PIBC chapter representatives in Vancouver, another recent teleconference meeting of the 'Planning Alliance Forum' (the leadership of all the planning institutes and associations across Canada), and plans for 2020 World Town Planning Day celebrations. After discussion, it was agreed that the Institute would provide each of the Institute's local chapters with their own branded pop-up display banner to keep and use at chapter events.

BOARD & GOVERNANCE

The Board reviewed and formally adopted the finalized 2019-2021 Strategic Plan, developed from the work undertaken by the Board and staff over the summer, and further revised at the October 2019 Board meeting. The final plan, as approved, would be available on the PIBC website.

ADMINISTRATION & FINANCE

Executive Director, Dave Crossley, reported on ongoing and key activities at the PIBC Office.

The Institute's internal, unaudited 2019 year-to-date financial statements (to Oct. 31st 2019) were reviewed for information.

MEMBER PROGRAMS & SERVICES

The Board discussed options for the term of membership and requirements for annual renewal of Student Members' memberships in light of the fact that Student Member are no longer required to pay annual membership fees. After discussion, it was agreed that going forward current Student Members would no longer need to individually renew their memberships each calendar year throughout the duration of their term of membership (the period of eligibility to remain a student member based on their gradu-ation date), subject to appropriate eligibility verification by the Institute as required from time to time.

NATIONAL AFFAIRS

The Board ratified and confirmed the appointment of David Block RPP, MCIP as the Institute's designated representative on the national Professional Standards Committee (PSC) – the national membership and accreditation standards policy committee. The Board also expressed thanks to Kerry Pateman RPP, MCIP who previously served in this role on behalf of PIBC.

COMMITTEE REPORTS & BUSINESS

Professional Standards & Certification: The Board approved the admission of a number of new members, and a number of membership transfers and changes.

Additionally, the Board addressed several pending membership revocations and time limit exten-sions for certain Candidate members reaching the prescribed time limits for completing the membership certification process.

Members of PIBC's 2019-2021 Board of Directors, November 2019

Policy & Public Affairs: The Board discussed the Institute's follow up response to the BC Ministry of Municipal Affairs and Housing Development Application Process Review (DAPR), as recommended by the Policy & Public Affairs Committee. There was agreement to send a letter to the Minister regarding involvement in the next phases of the process, and to publish a summary update to the membership.

The Board ratified the appointment of the following members to the Climate Action Sub-Committee of the Policy & Public Affairs Committee: Patricia Dehnel RPP, MCIP (Co-Chair); Sean Tynan RPP, MCIP (Co-Chair); Sara Muir-Owen RPP, MCIP; Suzanne Smith RPP, MCIP; John Ingram RPP, MCIP; Jeff Zukiwski RPP, MCIP; Clarissa Huffman; Devon Miller; Wendee Lang; and Dave Crossley (staff).

Member Engagement: The Board ratified the appointment of Jonathan Kitchen to the Member Engagement Committee.

INSTITUTE REPRESENTATIVE REPORTS & BUSINESS

The Student member representatives from the accredited university planning programs at UBC, UNBC, and VIU provided brief updates regarding activities at their respective schools and programs.

NEXT MEETING(S)

It was noted that the next regular Board meeting would be held on Friday, Jan. 31st, 2020 in Victoria (in conjunction with PIBC outreach with the BC Provincial Government).

On **January 31st, 2020** the PIBC Board of Directors met in Victoria, BC

It was acknowledged that the meeting was taking place on the traditional territories of the Songhees First Nation.

PRESIDENT

Lesley Cabott RPP, MCIP provided an update on various activities, including highlighting the success of November World Town Planning Day events, follow up work with local PIBC chapters, and successful outreach meetings with the BC Ministry of Municipal Affairs and Housing held in Victoria.

BOARD & GOVERNANCE

The Board reviewed and discussed progress on various goals and tasks from the 2019-2021 Strategic Plan.

ADMINISTRATION & FINANCE

Executive Director, Dave Crossley, reported on ongoing and key activities at the PIBC Office.

The Institute's internal, unaudited 2019 year-to-date financial statements (to Dec. 31st 2019) were reviewed for information.

The Board discussed options and possible approaches for developing and implementing enhanced staff support for the Institute's advocacy, policy and related work. The discussion will inform the activities of the Executive Committee and staff on this work going forward.

MEMBER PROGRAMS & SERVICES

The Board confirmed an earlier electronic resolution approving an updated schedule of potential future PIBC annual conference locations, including confirming the Institute's continued participation in the joint inter-professional BC Land Summit. Future conference options will include: Sun Peaks (2022), Nanaimo (2023), and the next BC Land Summit in 2024.

NATIONAL AFFAIRS

The Board received the annual report of the national Professional Standards Committee (PSC) – the national membership and accreditation standards policy committee. The Board also discussed and provided feedback on proposed updates to the competencies outlined in the national membership standards policy manual under consideration by the PSC.

The Board discussed and considered putting forward a suggested nominee for CIP's Honourary Membership recognition program. It was agreed to put forward a suggested nominee for CIP's consideration.

The Board received an update from the national Professional Standards Board – the national body that implements and administers the

membership and accreditation standards for the profession, including certification requirements for members and accreditation of university planning programs.

COMMITTEE REPORTS & BUSINESS

Professional Standards & Certification: The Board approved the admission of a number of new members, and a number of membership transfers and changes.

Additionally, the Board addressed a pending membership revocation and time limit extension for a Candidate member reaching the prescribed time limit for completing the membership certification process, as well as several membership revocations for Student members who had reached the time limit prescribed for their eligibility to remain Student members.

Policy & Public Affairs: The Board received an update on the work of the Committee including liaison and consultations with the BC Provincial Government regarding development approvals, climate adaptation and preparedness and modernization of BC's Emergency Program Act. There was also an update provided on outreach meetings with the BC Ministry of Municipal Affairs and Housing held in Victoria

The Board discussed options and possible approaches for advancing the Institute's goals and strategic tasks related to First Nations and indigenous issues. The discussion will inform the activities of the Policy & Public Affairs Committee and staff on this work going forward.

INSTITUTE REPRESENTATIVE REPORTS & BUSINESS

The Student member representatives from the accredited university planning programs at UBC, UNBC, and SFU provided brief updates regarding activities at their respective schools and programs.

NEXT MEETING(S)

It was noted that the next regular Board meeting would be held on Friday, Mar. 13th, 2020 in Prince George (in conjunction with a UNBC student event).

FILM SCREENING

Following the regular meeting, and in the spirit of the principles of truth & reconciliation, the Board engaged in a screening and brief discussion of the documentary film: "North Boys: The Story of Jimmy & Charlie".

MEMBERSHIP COMMITTEE REPORT
January 31, 2020

New Members

Congratulations and welcome to all the new PIBC Members!

At its meeting of January 31, 2020, it was recommended to and approved by the Board to admit the following individuals to membership in the Institute in the appropriate categories as noted:

CERTIFIED:

Sean Lee
(Joint with APPI)

Adam Mattinson
(Transfer from OPPI)

John Reid
(Transfer from OPPI)

Lauren Sanbrooks

Christopher Selvig

Paul Siggers

Paul Simon
(Transfer from APPI)

Eric Westberg
(Transfer from APPI)

CANDIDATE:

Zoe Acton

Joseph Balderston

Daniel Broderick

Colin Brown

Paul Cloutier
(Transfer from APPI)

Nicholas Copes

Sarah Cranston
(Transfer from OPPI)

Emily Dixon

Alexandra Doran

Kary Fell

MacLean Fitzgerald

Kathleen Heggie

Emily Johnson

Andrew Macaulay

Liam McLellan

Lainy Nowak

Kayla Pagliocchini
(Transfer from APPI)

Aaron Penner

Sophie Perndl

Patricia Reynes

Hailey Rilkoff

Shana Roberts

Stirling Scory
(Transfer from API)

Michael Taylor

Dejan Teodorovic
(Transfer from OPPI)

Thomas Thivener

RETIRED:

Felicity Adams

Lesley Baker

Joan Chess-Woollacott

Christina DeMarco

Brian Guzzi

Jane Mastin

Tony Pellett

Bruce Simard

PRE-CANDIDATE:

Ashley Bellwood

Taylor Jenks

Brittany Lange

Christopher Lumsden

Alix MacKay

Erin Munsie

Mark Sadoway
(Transfer from OPPI)

Jacqueline Savoie

Wolfgang Schoenefuhs

Kevin Shackles

STUDENT:

Clementine Bouche (SFU)

Bryce Deveau (UNBC)

Kristin Levy (UNBC)

Alberic Marginet
(Univ. of Guelph)

Kate Menzies (SFU)

Samantha Munns (UNBC)

Winter Pizandawatc (UBC)

Caitlyn Wiltsie
(Univ. of Waterloo)

Member Changes

It was further recommended to and approved by the Board to approve and/or acknowledge the following membership transfers and changes in membership status for the following individuals as noted:

FROM CERTIFIED TO MEMBER ON LEAVE:

Maggie Baynham

Sarah Bingham

Amelia Bowden

Robert Brennan

Keltie Craig

Maira De Avila Wilton

Janette Leung

Catherine Lisiak

Teresa Mahikwa

Minhee Park

Trudy Rotgans

Frieda Schade

Steve Shannon

Tosh Yamashita

Andrea Wen

FROM CANDIDATE TO MEMBER ON LEAVE:

Natalie Andrijancic

Catherine (Kasia) Biegun

Linda Gillan

FROM MEMBER ON LEAVE TO CERTIFIED:

Lesley Baker

Nirmal Bhattacharya

Joan Chess-Woollacott

Jennifer Fix

Brian Guzzi

Karen Moores

Rebecca Newlove

Todd Romaine

David Smith

FROM MEMBER ON LEAVE TO CANDIDATE:

Imelda Nurwisah

RESIGNED:

Carole Ames

Rick Brundrige

Heather Charest

Jesse Dill

Brandon Djordjevich

Neil Findlow

Lynn Guilbault

David Guscott

Ralda Hansen

Harry Harker

Leah Hartley

Pam Hext

Rob Innes

William (Bill) Lambert

Tadayori Nakao

Randy Pecarski

Cynthia Powell

Robert Ross

Lara Therrien Boulos

Lyndagale Thorn

In addition a total of **18 Student members** reached the prescribed time limits for eligibility for Student membership, and therefore also ceased to be members.

Hiukkavaara district
Oulu, Finland

Oulu is known as one of the most cycling friendly cities in Finland and is the largest urban centre in northern Scandinavia (with a population of 250,000 and growing). Soon, Europe's youngest city will be able to add future Smart City to its list of unique features.

Set to be completed in 2035, the Oulu's city district of Hiukkavaara will be a model for future Smart Cities. It will be an international example for northern city planning and construction based on sustainable building and living. Built to be a "Living Lab" for producing and testing energy efficient living concepts and solutions, Hiukkavaara is set to become a modern urban centre providing: areas for working and living, with an estimated 9,800 apartments and 1,800 workplaces; and premises for research, testing, and launching new products and services geared towards winter city planning practices.

Learn more about this future northern Smart City at: https://www.ouka.fi/oulu/hiukkavaara/english

Sources: https://nscn.eu/OuluSmartCity and http://okosvaros.lechnerkozpont.hu/en/node/157

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–Rebecca Chaster, City of Coquitlam Community Planner

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