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Growth and renewal in the City of Hamilton, the location of OPPI's **2024 Adaptation Transformation** Conference 66

Why robust business intelligence matters to today's planning leaders. 08

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Wondering who won the 2024 PlanON Awards?

OPPI is delighted to congratulate this year's PlanON Award winners!

RPP LEADERSHIP AWARD

• Rory Baksh, RPP

VOLUNTEER SERVICE AWARD

• Kristin Dibble Pechkovsky, RPP

INNOVATIVE RESEARCH AWARD

Project: Aging but not Forgotten: An Analysis of Older Adult Health Care Access in Elliot Lake

• Rachel Barber, STUDENT MEMBER

Project: Affordable Housing Tools for Rural Greenbelt Communities: Balancing Growth, Conservation, and Economic and Social Sustainability

OPPI Team Members:

- Karsten Brix, STUDENT MEMBER
- Natalie Majda, STUDENT MEMBER
- Amanda Morielli, STUDENT MEMBER
- Michael Ricci, STUDENT MEMBER

PUBLIC EDUCATION AWARD

Project: Zoom In/Zoom Out

OPPI Team Members:

- Naama Blonder, MCIP, RPP, B.ARCH, OAA
- Yvonne Ye, candidate member

Project: Growing with the City: An Ecosystem of Initiatives for Allan Gardens

• Steven Shuttle, candidate member

VISION AWARD: AWARDS OF EXCELLENCE

Project: Brampton Plan

OPPI Team Members:

- Anand Balram, MCIP, RPP
- Gregory Bender, MCIP, RPP
- Shannon Brooks-Gupta, MCIP, RPP
- Tristan Costa, MCIP, RPP
- Nadia Dowhaniuk, MCIP, RPP
- Steve Ganesh, MCIP, RPP
- Matt Rodrigues, MCIP, RPP
- Andria Sallese, MCIP, RPP
- Geoffrey Singer, MCIP, RPP
- Jessica Yadav, pre-candidate
- Henrik Zbogar, MCIP, RPP

Project: City of Kitchener's Growing Together

OPPI Team Members:

- Rosa Bustamante, MCIP, RPP
- Natalie Goss, MCIP, RPP
- John Zunic, MCIP, RPP

Project: City of Hamilton's Environmental Remediation and Site Enhancement (ERASE) Community Improvement Plan Review

• Phil Caldwell, MCIP, RPP

VISION AWARD: AWARDS OF MERIT

Project: Vision SoHo

• Harry Froussios, MCIP, RPP

Project: Expanding Housing Options in Neighbourhoods Multiplex Study, Official Plan and Zoning By-law Amendments

OPPI Team Members:

- Chris Hilbrecht, RPP
- Aileen Keng, RPP
- Kyle Knoeck, MCIP, RPP
- Daniel Kolominsky, candidate member
- Deanne Mighton, RPP, LEED AP
- Sarah Ovens, CANDIDATE MEMBER
- Caroline Samuel, MCIP, RPP
- Carla Tsang, MSc.PL, CANDIDATE MEMBER
- Matthew Zentner, MPL, CANDIDATE MEMBER

Project: Jane Finch Mall Planning & Engagement Process (jfm+)

OPPI Team Members:

- Yasmin Afshar, CANDIDATE MEMBER, DICE
- Craig Lametti, MCIP, RPP
- Emily Reisman, MCIP, RPP, IAP2
- Keisha St. Louis-McBurnie, candidate member

Project: Township of Clearview Official Plan

OPPI Team Members:

- Amy Cann, MPL, MCIP, RPP
- Patrick Casey, pre-candidate member
- Steve Wever, MCIP, RPP

The 2024 PlanOn Award ceremony, including the announcement of the Project of the Year, is taking place at OPPI's Transformation Adaptation Conference in Hamilton September 25 to 27, 2024. If you are unable to attend the celebration, you can catch up on all the news at www.ontarioplanners.ca/PlanON.





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INSPIRE

THE CITY OF HAMILTON — HOST CITY FOR OPPI'S 2024 ADAPTATION TRANSFORMATION CONFERENCE — EXEMPLIFIES PLANNING INNOVATION IN MANY WAYS. HERE ARE THREE OF THEM.

Reimagining Neighbourhoods

Reimagining Neighbourhoods aims to create consistent residential zones across Hamilton's entire urban area to expand the types of housing permitted and provide greater housing options for residents. Changes to the low-density residential zones include:

- Removing the barriers of exclusionary zoning which restrict housing types permitted in neighbourhoods.
- Providing housing choice and more affordable housing options for residents.
- Promoting sustainable growth that makes use of existing infrastructure and services.
- Providing more housing options for residents at various life stages.

Learn more: www.hamilton.ca/build-invest-grow/planning-development/zoning/residential-zones-project



Biodiversity Action Plan

Hamilton has a diversity of unique natural heritage features, including Dundas Valley, Cootes Paradise, and the Niagara Escarpment, among many other woodlands, wetlands, waterways, and natural spaces across the city. These areas are home to a variety of plants, birds, insects, and animals and contribute to a broader regional ecosystem.

However, Hamilton is facing a biodiversity crisis with species and habitats threatened by pollution, invasive species, and climate change impacts as well as habitat loss and fragmentation. In response, leaders in Hamilton's conservation community and

the City of Hamilton have partnered to develop a Biodiversity Action Plan for Hamilton that aims to:

- Protect biodiversity by incorporating best practices for natural areas and greenspaces in policy, guidelines, and land management plans and by identifying funding strategies that support the protection and enhancement of the natural environment.
- Explore, educate, and exchange information about biodiversity through partnerships, community science, and outreach.
- Connect partner policies, processes, data, and workflows to streamline efforts to support biodiversity.
- Restore biodiversity through nature-based stewardship activities on public and private lands.

Learn more: engage.hamilton.ca/biodiversityplan

3 Parking Standards Review

Historically, parking requirements in Hamilton have generally been established to ensure developments provide sufficient parking to satisfy peak demands. This approach was based on the objective of minimizing parking spill-over into residential areas and places the responsibility on individual developments to bear the cost of parking supply. In some instances, this practice has resulted in providing an over-supply of "free" parking that has contributed to auto-oriented land use and increased auto dependency.

A four-zone system has been identified for Hamilton, adopting a geographically based approach to parking requirements. It is proposed that minimum parking requirements for residential uses be eliminated for Zone A and lowered for all remaining zones.

Learn more: www.hamilton.ca/build-invest-grow/planning-development/zoning/parking-standards-review

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"What an exciting time to be sharing, learning, growing, and adapting. Our annual conference is always an opportunity to reconnect with colleagues and reignite passion by learning from the over 100 conference sessions that have been thoughtfully curated by staff and members."

e are thrilled to welcome you to the OPPI Adaptation Transformation Conference in Hamilton, Ontario! We encourage you to join us from September 25 to 27 to dive into the dynamic world of Ontario planners and discover how we are leading communities through the profession's rapidly changing landscape.

The OPPI Adaptation Transformation Conference – like many other years – provides our profession with the opportunity to think critically about pressing topics impacting the planning profession today, including housing affordability and supply, resources, agricultural preservation, changing demographics, representation of equity-deserving groups, advancements in technology, and more.

The conference is our opportunity to learn together and to challenge ourselves to think about how we as change-makers are able to respond to the bigger issues of our society relative to our commitment and work in the public interest. Through our PlanON Awards, we look forward to acknowledging the hard and innovative work within our profession, elevating the role of planners and our unique skills and ability to reconcile, balance, and facilitate community growth and development.

While focusing on larger planning issues and opportunities, we continue to respond to the ever-changing legislative and political framework in which we work. As Registered Professional Planners, we are leaders and experts in the planning process and understand the unique nuances and "pinch"

points" in our own processes and practices. We are committed to working proactively with government and other interest-holders to understand how we can be part of the solution – improving efficiency, efficacy, and engagement.

With that in mind, I also want to celebrate the launch of Action 2025, the joint CIP and OPPI Conference to be held in Toronto July 8–10. There is much to be done between now and then. We understand that change and evolution take time and effort and would not be possible without our members and partners. It is essential that we continue to grow our communities while preserving the integrity of planning in the public interest.

Let's continue to reconnect, revisit, and reinvigorate the future of our profession!

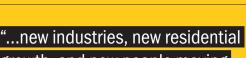


Claire Basinski, MCIP, RPP, CP3

Chair

Ontario Professional Planners Institute (OPPI)

Growth and renewal in the City of Hamilton



to the city."

BY ANITA FABAC, RPP



here are not many communities in the province that are lucky to have a beautiful waterfront, historic neighbourhoods and downtowns, and incredible natural areas. Hamilton is one of these communities. The city has been enjoying a renaissance of sorts, experiencing growth and renewal with new industries, new residential growth, and new people moving to the city. And because of this, the city continues to evolve into an even more dynamic and exciting place to live, invest, work and play.

"The downtown has seen significant growth and redevelopment over the last decade."

Hamilton includes urban, suburban, and rural communities with traditional downtowns in the city, each with their own sets of unique planning challenges and opportunities. The downtown has seen significant growth and redevelopment over the last decade.

While there has been growth and development, the last number of years have been years of change and important decision-making. At the same time, there has been a significant number of legislative changes and some key decisions by council, including a no urban boundary expansion strategy to focus growth within the urban boundary.

Much of the work to this point has been focused on building homes and creating communities where people will want to live. And our work is not over! We have a number of planning initiatives underway to support the creation of more homes across the city within the urban boundary including:

- Continuing to bring more properties into our new zoning by-law to pre-zone properties and update asof-right zoning permissions;
- Developing a rental housing protection by-law, which
 is so important in protecting our current supply of
 homes across the city, as this is our largest stock of
 affordable housing, and we want to make sure that if
 rental units are demolished, they are replaced with
 rental units;
- Undertaking a family friendly housing initiative to

- ensure the unit mix and sizes in future developments will meet the full continuum of housing needs in the city;
- Major Transit Station Area planning work, including inclusionary zoning, as the planned LRT route from McMaster University to Eastgate is a \$3.4 billion investment, and we need to align our planning framework and direct growth to these areas; and,
- Continuing to expand housing permissions in the low-density residential zones.

One of the initiatives I am most proud of is our strategy for intensification in the built-up area. To do this, we made a determined decision to step away from traditional zoning and reimagine how neighbourhoods could start to experience small-scale intensification. Our Reimagining Neighbourhoods project is more than about just accommodating future growth in the built-up area. It is about providing a housing choice for the diverse people who chose to live here and the potential it brings for more housing options.

The changes were aimed at removing the barriers of exclusionary zoning and promoting sustainable growth by making better use of existing services and infrastructure. To date, the as-of-right fourplex permission has been applied to approximately 75 per cent of all low-density residential-zoned properties across the city so that over 96,000 properties permit up to four units as of right, which means permissions for over 386,000 units.

"...we made a determined decision to step away from traditional zoning and reimagine how neighbourhoods could start to experience small-scale intensification."

A lot of important work is being done in the City of Hamilton and I am proud of what the city has accomplished and the steps it has taken to encourage greater housing options to address the housing crisis.



ANITA FABAC, RPP is a Member of OPPI and Acting Director of Planning and Chief Planner in the City of Hamilton's Planning and Economic Development Department.



Why robust business intelligence matters to today's planning leaders: Continuous innovations in development services

BY RORY BAKSH, RPP

lot of reporting in our business can be about plan-making since it tends to be more "exciting." Conversely, the stories of the practitioners leading development applications through the approvals process are rarely told. Those planners in development services are a sizeable body of members in OPPI and a substantial force in the profession. What gets built in communities is a result of their shared involvement with other players. And behind the scenes, there is a constant expectation of continually improving. This article brings these efforts to light and shows how development services has embraced technology and innovation.

FROM REACTIVE TO PROACTIVE

Behind the proverbial counter at municipalities across Ontario, leagues of planners and other professionals handle thousands of development applications every month. They are charged with goals of timeliness, accountability, customer service, and efficiency. Simultaneously, nearly all of them struggle with fixed resources and externalities impacting their effectiveness.

This approach to development approvals is *reactionary* – a trigger generates a response – and this is resource-intensive, sometimes chaotic, and relatively inefficient. However, innovative thinking by senior leadership at municipalities is moving development approvals towards being *proactive* – having foresight and taking advance initiative – that will optimize the delivery of development services. The innovative thinking is married to a variety of innovations that foretell the future of what optimal development services may look like across Ontario in the years ahead.

THROUGHPUT KPIS FOR SUBDIVISION DEVELOPMENT APPROVALS

Post Draft Plan Building **Building Inspections Housing units** Approvals (Subdivision) Permitting and Occupancy that help meet the Engineering Approvals Approvals Approvals housing target KPIs measure review cycles KPIs measure review cycles KPIs measure foundation / KPIs measure final clearance and draft approved lots and registered lots complete structure permits of code compliance

The suite of key performance indicators (for subdivisions) to help measure housing unit throughput across approvals service channels. Credit: Dillon Consulting Limited



WELL, OF COURSE, WE HAVE A COMPUTER SYSTEM

Foundational to innovation is the usage of a computerized workflow platform. This tool provides a central hub for application intake via an online portal, electronic circulation of application materials for review by staff and agencies, communication with the applicant, and document management. Many local governments across Ontario are well past this foundational investment and have a wealth of data about their development application volumes, types of development applications, and application status.

"...planners in development services are a sizeable body of members in OPPI and a substantial force in the profession."

A BIGGER QUESTION THAN EXPECTED: HOW ARE WE DOING AND WHAT NEEDS IMPROVEMENT?

With robust software in place, senior leaders across municipalities felt confident that they could receive a prompt answer to a simple question, "How are we doing and what needs improvement?" This turned out to be a bigger question than expected because the data - at the right level of precision and disaggregation - does not necessarily exist in all these platforms. For example, it is typically easy to quantify how many site plan applications are active; however, it can be difficult to quickly determine which ones are delayed and why. It is also common that cycles of resubmission and review are not tracked definitively in the software. Reducing review cycles is desired by both municipalities and applicants. Without the right data, senior leadership cannot easily diagnose the root cause(s) to reduce cycle frequency or duration.

THE RIGHT MINDSET: DEVELOPMENT APPROVALS IS A MULTI-MILLION DOLLAR VENTURE THAT NEEDS BUSINESS INTELLIGENCE

When we think of highly successful businesses in the private sector today, every one of them operates with a significant degree of business intelligence. Instead of "gut instinct," having insight to every aspect of the business's operation provides real-time data to drive decision-making. Data-driven decisions allow these businesses to better meet their customer needs, continually improve, and attract employees to their thriving organization. Netflix, for example, uses the data it gathers about its customers' viewing choices to then make recommendations that have increased customer retention and sales.¹

When the many staff across a municipality's planning, development engineering, and building services are counted, local government is clearly running a multimillion dollar venture. When the increased multi-year property tax revenue, value of infrastructure, and the construction value of every building arising from development approvals are factored in, development services are a key partner in a multi-billion-dollar enterprise for large municipalities. To succeed, innovative municipalities have embraced the mindset that data-driven decisions are a modern necessity.

INVESTING IN BUSINESS INTELLIGENCE: IT'S TECHNOLOGY, PEOPLE, AND TRAINING

On the path of innovating development approvals, there is increasing investment in both business intelligence (BI) software and business analyst staff. The BI software provides the robust tool to dissect, analyze, and compare data. Development approvals performance is easily visualized and pinch points are highlighted. The business analyst staff understand how data is captured in the municipality's system. They have the skills to build the real-time reporting and system-at-a-glance dashboards that senior leadership needs. This is married with training frontline staff to use the workflow platform to its fullest extent and upskilling management on data-driven decision-making techniques.

REFUNDS AND HOUSING TARGETS SPAWN INNOVATIVE KPIS AND NEW WORKFLOWS

For a brief period, Ontario municipalities were obligated to provide refunds to applicants for rezoning and site plan applications. Municipalities could not afford to compromise this important stream of revenue. Senior leadership needed to closely track the timeline of re-zoning and site plan applications approaching statutory refund milestones and the source of any delay.

"...innovative thinking by senior leadership at municipalities is moving development approvals towards being proactive..."

The province also mandated housing targets and senior leaders are asking, "How are we doing against the target?" and "Will we get there?" The first question asked how many units were approved and how many units still needed to be built. The second question posed a more challenging query about whether municipal systems had predictive capabilities.

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This spurred two innovations for development services: a suite of new key performance indicators (KPIs) and better tracking tools. The KPIs shed light on what needs to be measured so that the right data is available for analytics (it's these analytics that feed senior leadership's dashboards). A key innovation is "the chess clock" – the timer being in "clock on" position when a file is being reviewed by staff, then the timer switching to "clock off" position once staff provide comments back to the applicant.

"With this framework in place and data becoming populated in the system, the KPIs afford municipalities with the data richness they need to make predictions about meeting their housing target."

Innovative KPIs have also been designed to monitor not only output but also the throughput of housing units from the point of application intake. This recognizes the important role that developers play – housing units come to fruition because of the applications they make. With throughput KPIs, municipalities can monitor the unit counts in the proposed developments as the applications move through approvals stages. With this framework in place and data becoming populated in the system, the KPIs afford municipalities with the data richness they need to make predictions about meeting their housing target.

"Artificial intelligence (AI) tools are currently being piloted that will 'learn' the municipality's zoning by-law and automate the task of zoning examination."

NEW HORIZONS AND FUTURE INNOVATIONS

The constant innovation within development services opens the door for even greater innovation. Artificial intelligence (AI) tools are currently being piloted that will "learn" the municipality's zoning by-law and automate the task of zoning examination. AI functionality like this is expected to move swiftly into the realm of policy review, engineering review, and code review, as well. This will free up staff's valuable time so they can better spend it liaising meaningfully with stakeholders and engaging in collaborative problem-solving for complex development.

"CONTINUOUS IMPROVEMENT IS BETTER THAN DELAYED PERFECTION"

The preceding quote, commonly attributed to American humourist Mark Twain, sums up recent successes and serves as wise advice for other municipalities desiring these innovations. Planning leaders can start by asking key questions that demand data to inform good decisions. Innovations will begin to snowball into tangible service enhancement and optimization. Alongside AI tools just within reach, there is the potential for a rapid, positive transformation of how development services are delivered across Ontario. Today's planning leaders who understand the innovations of business intelligence will be the ones who unleash the full potential of their team in the future.

¹ RIB Software (Jun 6, 2024). Why Data Driven Decision Making is Your Path To Business Success. https://www.rib-software.com/ en/blogs/data-driven-decision-making-in-businesses

²MacLennan, R. (May 14, 2024). AI pilot projects aim to streamline permitting process in Burlington. *Ontario Construction News*. https://www.ontarioconstructionnews.com/ai-pilot-projects-aim-to-streamline-permitting-process-in-burlington/

³ Nawari, N. & Christy, R. (Nov 14, 2023). Using AI to Review Construction Plans. Warrington College of Business. https://warrington.ufl.edu/due-diligence/2023/11/14/using-ai-to-review-construction-plans/



Rory Baksh, MCIP, RPP, is a Member of OPPI and a Partner at Dillon Consulting with over 26 years of experience. He has a unique wealth of expertise in development services transformation through numerous assignments across Canada and internationally. He can be reached at rbaksh@dillon.ca.

Progress through incremental change:

The rise of fourplexes and fall of the single-detached neighbourhood in Thunder Bay, Ontario

BY JILLIAN FAZIO

t's 2018 and I've been working as a municipal planner for the City of ▲ Thunder Bay for just over a year. I've also just evaluated my fifth rezoning application to allow for a fourplex on an interior lot. In the low-density urban residential zones that covered most of the city, fourplexes were only permitted on large corner lots. In a slow-growing city like Thunder Bay, development opportunities on these lots were few and far between. Developers instead were finding narrower interior lots for infill and applying for zoning by-law amendments. At the time, I evaluated so many similar applications that a local planning consultant nicknamed me "Fourplex Fazio."

Despite how many fourplexes were being proposed, they always felt controversial. Neighbours didn't want to share on-street parking, or they felt the building would be noisy or cast shadows on their lawn. Several objections were just thinly veiled (or at times point-blank) biases toward renters. While there were frequent objections against them, fourplex applications

were consistently approved by city council and upheld during appeals.

This was my first lesson in paying attention to trends. When you see that many similar applications, you have to wonder maybe it is you, not them. It was time to re-consider the regulatory framework that controlled housing form.

"While there were frequent objections against them, fourplex applications were consistently approved by city council and upheld during appeals."

At the time, the City of Thunder Bay zoning by-law from 2010 had a traditional zoning structure with nested permitted uses. Corner lots or lots with frontage on higher order streets had additional permitted uses despite being in the same zone. Like many zoning by-laws, there were multiple urban residential zones serving quite similar purposes. For low-density residential, there was a single-detached-only zone, a two-unit zone, a two-unit (except on corners) zone, and a four-unit-only zone. A strategy commonly used to protect single-detached neighbourhoods.

Attempts to eliminate the single-detached zone were made during the approval process for the both the 1983 and 2010 zoning by-law and were not successful. Public and political opinion was not in favour of more

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Incremental changes over time built to an overall shift in political and public opinion which allowed for City of Thunder Bay planners to present a radical change to the city's zoning by-law. This change eliminated single-detached zones in the urban area and allowed for significant infill development in the form of four- and six-unit apartments in stable residential neighbourhoods.

This zoning by-law supports the City of Thunder Bay's long-term goals to increase housing supply and options, promote the efficient use of existing infrastructure and services, and support a more sustainable and climate-ready future.

density in existing stable neighbourhoods. Even allowing fourplexes on corner lots was controversial at the time.

Before 2019, the municipal planning team was adamant that permitting a fourplex on an interior lot could not pass the four tests for a minor variance and applications were processed through the more rigorous zoning by-law amendment process. Within a few years, the planning landscape in the city had changed. The *Planning Act* required provisions for additional dwelling units, there was a new Official Plan with strong support for residential infill, and fourplexes had been built midblock in many neighbourhoods. There was a shift to consider fourplexes through the minor variance process. At the same time, work began on developing a new zoning by-law.

"In hindsight, it was just a natural evolution of shifting values and growing demand."

During the development of a new zoning by-law, my team went in circles trying to create regulations that would allow second units in semi-detached houses. What if the semi-detached house wasn't a freehold? Wouldn't that just make it a fourplex? (Yes). At some point, we took a step back from analysis-paralysis and realized the obvious; there wasn't any reason to restrict fourplexes. I had already written countless planning rationales over the years arguing that they belonged in existing low-density neighbourhoods, not exclusively on busy arterials and corner lots.

It was then that the decision was made to eliminate not only the single-detached zone, but also the two-

unit zones in favour of one low-density zone that would permit up to four units. We awaited objections to fourplexes that never really came. The planning team's perspective had changed but so had the public's perspective. A fourplex just wasn't a big deal anymore.

In 2022, the City of Thunder Bay's zoning by-law eliminated single-detached-only zones without fanfare. At the time, this seemed like a major change. In hindsight, it was just a natural evolution of shifting values and growing demand. It took small pushes throughout the years to eventually make a once radical change seem not only rational but necessary.

This clearly demonstrates that change is slow and incremental particularly in the world of planning. Many cities throughout Ontario and Canada continue to protect single-detached neighbourhoods. I suspect that in time they too will come to accept the inevitable change.



Jillian Fazio is Candidate Member of OPPI and Senior Planner for the City of Thunder Bay. She has over six years of municipal planning experience evaluating development applications and working with the Planning Services Team on policy development and process improvement. She recently completed an update to the City's Urban Design Guidelines and co-wrote the City of Thunder Bay's Zoning By-law, passed in 2022, as well as the recent update in 2024 which further increased opportunities for housing intensification.



Defining a roadmap for mental health: Co-creating solutions to planner burnout

BY LIZ BUCKTON, RPP, AND BECKY HILLYER

s professionals, we are responsible for following our Code of Ethics and Standards of Practice. These resources speak to how planners will navigate and attend to our ethical obligations to employers, clients, and the public interest.

But in preparing our proposal for OPPI's 2024 conference, we wondered: what do we as planners, owe to ourselves? Given the stresses and complex issues we're navigating in our professional roles, often with limited staffing or other resources, we hope to explore what we and our employers can realistically do to support our resilience and positive mental health outcomes.

Recently, the World Health Organization formally defined burnout as an "occupational phenomenon" and a syndrome conceptualized as resulting from chronic workplace stress that has not been successfully managed. They identify burnout as being characterized by three dimensions: feelings of energy depletion or exhaustion; increased mental distance from one's job, or feelings of negativism or cynicism related to one's job; and reduced professional efficacy.

The American Psychiatric Association additionally includes "depersonalization" as a dimension of burnout,

involving thoughts and feelings that seem unreal or not belonging to oneself, and they further describe burnout as an individual's response to a systemic problem.²

We believe this is an important distinction – that burnout is not an individual issue or personal or moral failing but arises from the system and circumstances within which individuals are working. Of course, we each have unique personalities and ways of being, perceiving, and interacting that can also influence our experiences and exacerbate risk factors that may exist in our workplaces. All things considered, burnout may occur where an individual is experiencing a chronic mismatch between the demands upon them and the internal and external resources available to them to manage those demands effectively over time.

This interaction between the psychological and social aspects that influence an individual's well-being are addressed in academia and the field of Occupational Health and Safety Management, as "psychosocial risk factors." As described by the Canadian Centre for Occupational Health and Safety and "Guarding Minds at Work"— a comprehensive set of resources designed to assess risks and address and manage workplace psychological health and safety—the psychosocial workplace risk factors are understood to include the following:3



PSYCHOSOCIAL FACTORS	WHEN WELL-ADDRESSED:
Balance	Individuals are supported in managing the demands of their work, family and personal lives.
Civility and Respect	Individuals are considerate and fair in their interactions with each other. Civility involves showing esteem, care and consideration for others and acknowledging their human dignity.
Clear Leadership and Expectations	Individuals know what they need to do, how their work contributes to the organization and whether there are changes planned.
Engagement	Engaged individuals are motivated to do their job well and feel connected to their work, co-workers, and organization.
Growth and Development	Employees receive ongoing encouragement and support to enhance their skills.
Involvement and Influence	Individuals are included in discussions and are invited to offer input into decisions that affect their work and roles.
Organizational Culture	The organization supports and promotes shared values of trust, honesty, fairness and accountability.
Protection of Physical Safety	Individuals are protected against injury and illness and have what they need to do their jobs safely.
Psychological and Social Support	Individuals feel a sense of belonging and contribution within their organization and profession.
Psychological Competencies and Demands	Individuals are adequately supported to meet the psychological demands of their position.
Psychological Protection	Individuals are free from bullying, harassment, stigma and discrimination.
Recognition and Reward	Recognition and reward are used to acknowledge and express appreciation of an individual's efforts in a fair and timely manner.
Workload Management	Adequate support is provided to individuals, such that they may complete their assigned tasks and responsibilities successfully.

Given the significant pressures of recent years — including the strain of the COVID-19 pandemic, the pressing need for affordable housing, an ever-changing legislative environment, and planning in the context of climate change, to name a few — our working lives as planners seem particularly ripe for experiences of burnout.

In our session at the 2024 OPPI conference, we hope to glean input from attendees about how these various factors may show up uniquely in the working lives of professional planners and how planners and our employers may manage and mitigate associated risks in our workplaces. We hope to hear how planners address these factors as individuals – for example, through the cultivation of coping practices and mindsets that may help maintain positive orientation to work – as well as what companies and institutions are doing to better support systems within which we all operate. The goal is the co-creation of a list of potential actions for practitioners and our employers to support planner well-being across Ontario and beyond. \bigcirc

¹World Health Organization (May 28, 2019). Burn-out an "occupational phenomenon": International Classification of Diseases. https://www.who.int/news/item/28-05-2019-burn-out-an-occupational-phenomenon-international-classification-of-diseases

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 2 Canadian Centre for Occupational Health and Safety. Mental Health: Job Burnout. https://www.ccohs.ca/oshanswers/psychosocial/mh/mentalhealth_jobburnout.html

³ Canadian Centre for Occupational Health and Safety. Mental Health: Psychosocial Risk Factors in the Workplace. https://www.ccohs.ca/oshanswers/psychosocial/mh/mentalhealth_risk.html

Come see their conference concurrent session "Defining a Roadmap for Mental Health: Co-creating solutions to Planner Burnout" on Friday September 26 at 10:30 a.m. Check the conference schedule for full details.





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landscape, processes are created to stop tower proliferation.

However, this sets Canada back from providing reliable, affordable, high-quality telecommunication services to Canadians in both urban and rural settings. As municipalities and technologies grow, having reliable wireless service is vital. This article aims to give municipal planners a better understanding of the telecommunication industry and its importance in planning.

DEMAND KEEPS GROWING

With increasing demands for immigration and housing, and potentially thousands of new wireless telecommunication projects underway, finding new locations and obtaining approvals in a timely manner is crucial for the successful growth of a municipality. Municipalities are facing the challenge of accommodating this growth while ensuring that telecommunications infrastructure keeps pace with the evolving needs of residents and businesses. These structures are federally regulated by Innovation, Science and Economic Development (ISED) Canada; however, most municipalities have adopted their own telecommunications protocol.

New developments in technology, such as the Internet of Things (IoT), artificial intelligence (AI), and smart city initiatives, are driving the need for robust telecommunications networks. These technologies rely on seamless connectivity to collect and analyze data, optimize resource usage, and enhance overall quality of life. As municipalities strive to become smarter and more efficient, the importance of telecommunications infrastructure in supporting these initiatives cannot be overstated.

Moreover, the ongoing influx of immigrants and population growth in urban centres further exacerbates the demand for wireless services. As more people settle in these areas, the strain on existing infrastructure intensifies, leading to congestion and service degradation. Municipal planners must proactively address these challenges by identifying suitable locations for new infrastructure deployment and streamlining regulatory processes to expedite approvals.

In addition to accommodating current needs, planners must also anticipate future growth and ensure telecommunications infrastructure is scalable and resilient.

This requires long-term strategic planning

and collaboration between public and private stakeholders to develop sustainable solutions that can accommodate the evolving demands of a dynamic urban landscape.

The lengthy municipal approval process also delays essential wireless telecommunication infrastructure. Despite receiving staff recommendations, being federally regulated, and not being contentious, many applications take too long to reach the development committee and are often rejected, wasting significant municipal and committee resources. Streamlining these processes is crucial to meet the growing demand for reliable wireless services.

Of course, the way we use telecommunications has drastically changed over the years. Originally, sites were located far apart and covered long ranges (3-4 km), primarily providing cellular coverage along corridors. The go-to tower type was a lattice structure, similar to hydro transmission lines. However, the introduction of new spectrum licences, particularly in higher frequency bands, has contributed to changes in coverage range. Higher frequency bands, while capable of carrying more data, have shorter ranges and are more susceptible to







Multi-Use Hybrid Simulation Lattice Self-Support Monopine Tree Tower Guyed Tower

"The way we use telecommunications has drastically changed over the years."

obstructions such as buildings and trees. Today, with the construction of tall buildings and dense neighbourhoods, the range of these sites is further impacted, necessitating stealth designs within neighbourhood blocks. Despite concealed design options, these designs are often not well-received by the public.

"...telecommunication infrastructure is an emerging topic that needs more attention..."

Property values and health and safety are the two main concerns from the public. Real property value is influenced by fluctuations in interest rates, property taxes, and utility rates more than the presence of telecommunication infrastructure. Regarding health and safety, this requires a full separate discussion, but there are stringent requirements to uphold an operating licence. Health Canada has provided guidelines for safe exposure to electromagnetic fields. At the municipal level in the Greater Toronto Area, it can take months to schedule a preliminary consultation meeting, months debating

the applicable policies, and months making a final decision. There is no appeal body other than ISED, but the recommendation is always to continue to work with the public and municipalities.

Telecommunication planners must address how to locate antenna systems roughly 500-700 metres apart in urban areas that are consistent with the built form. It's a challenge. Time is of the essence as technology changes fast, and issues need to be addressed quickly. With new subscriptions and new trends, the demand for enhanced wireless coverage is increasing at a rapid pace. Planning for telecommunication infrastructure when designing block plans or reviewing official plans should be considered. However, the response is often to wait for plans to be completed before new applications can be accepted.

Many municipalities struggle to have good service because they have dense residential neighbourhoods. Restrictions on tower siting and recommendations to place towers at the edge of the city or away from sensitive land uses are common but impractical. Wireless infrastructure needs to be close to the user and above obstructions, typically between 15-45 metres in height. People have more than one wireless device and increasingly

use them from home, especially with more people working from home. As urban areas become denser, the need for wireless infrastructure grows because existing cell networks shrink with more users.

For minor improvements, you might see existing structures enhanced, but at what cost? Due to lengthy delays, even concealed towers may end up with antennas added to the outside, defeating the purpose of an elegant design and affecting the aesthetic look of our environment and neighbourhoods. The goal should not be to create strict policies to stop tower proliferation, but instead find ways to integrate them well into the built environment.

TELECOMMUNICATION PLANNING BASICS

Every service provider has its own specifications and needs to consider the existing network and future needs. This is determined by a radiofrequency engineer who understands the cellular provider's network objectives. Below may help in understanding the basics of telecommunications.

What is telecommunication planning? It is planning for enhanced wireless coverage in anticipation of population growth and to



have infrastructure in place for future smart city technologies. It is to fix coverage gaps within an existing network and to enhance wireless connectivity for commerce, distance education, and employment.

How does a cell network work? A cell is an area with a set of radio frequencies. To avoid interference, the same set of frequencies cannot be used close to each other. Each service provider has a licence to operate and owns its own set of frequencies. Each cell contains a base station with antennas, known as a cell tower. Antennas must be at a height above obstructions and face different directions (azimuths). From the wireless device, a signal is sent to the nearest antenna, which then sends it to a central office and passes it to the nearest antenna closest to the end user. The components of a cell site include a structure to maintain height, antennas, microwave dishes, remote radio units, transmitter and receiver cables, compound for equipment cabinets, transformers, disconnect switches, and a check metre for hydro consumption.

How is a site determined? It may be a coverage issue as with a new development or a capacity issue where there are more users than the network can handle. A site may be determined for a temporary event where many users will be in one place. A site may also be a be a government mandate such as access for remote rural areas or special programs.

What must be considered in site selection? Considerations include nearby tower sites, population density/growth, existing structures (rooftops, light poles, water towers), available landlords willing to enter a lease agreement, access to hydro, access to the location, obstructions

(trees, metal, airport height restrictions), existing soil conditions, and ground space requirements.

What are the different tower types? Tower types include lattice self-support tower, lattice tripole tower, shrouded/conceal tripole, monopole tower, flush mount, pinwheel, monopine tree tower, flagpole, light standard, guyed tower, and multi-use/hybrid.

Aside from these tower types, rooftops, fibre optics, and small-cell antennas are other forms of establishing a wireless network. It is important to note that tower design can impact co-location and overall coverage as it can limit the size and type of equipment allowable due to space diversity and/or cable loss. Municipal protocols asking for the most aesthetic design in the furthest location can be a deterring factor in a municipality having great connectivity.

"The true backbone of a tech-city is having the infrastructure in place."

MOVING FORWARD

Overall, telecommunication infrastructure is an emerging topic that needs more attention in the planning realm. Planners should have a basic understanding that can help them in the decision-making process. This form of planning needs to be taught in the planning curriculum at schools and in municipal departments. Current planners need to focus on how the technology works to understand where proponents of telecommunication systems are coming from.

Another reason for the importance of this knowledge relates to municipal

planner retention. There may be a planner with telecom knowledge in each municipality, but upon their departure and with every new planner processing these structures, it means starting from ground zero. There are government-led programs and smart city initiatives that are promoted on one end, but tower infrastructure plans that are demoted by others. Recently, major cities have taken a lead role in addressing digital master planning, but this is only geared towards IT solutions and cities being mobilefriendly. They understand that innovation in the city/region relies on the long-term sustainability of creating a smart economy by allowing citizens to access eServices and trying to engage civic participation through social media. This is a great step in cities embracing technology and change, but the true backbone of a techcity is having the infrastructure in place.

Demand for wireless connectivity continues to grow, requiring a better understanding of the telecommunication industry. (\(\pa\))



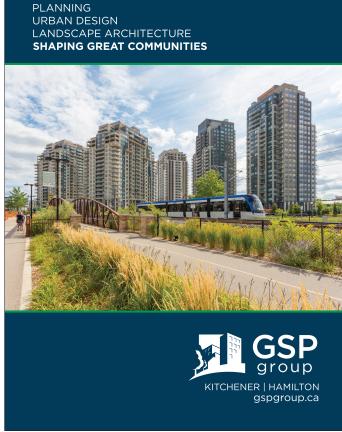
Shehryar Khan, McIP, RPP, is a Member of OPPI and the managing director for The Land Planners Inc., a Toronto firm that consults on infrastructure-related planning projects.

SOME RECOMMENDATIONS FOR MUNICIPALITIES TO CONSIDER

- Develop a telecommunications infrastructure
- Revisit municipal telecommunication protocols that contradict other policies.
- Involve other departments such as economic development, real estate, and/or IT.
- The government is one of the largest owners of property — make these lands available for longterm leasing.
- Conduct an educational seminar on telecommunication infrastructure planning.









Guidelines to Support Age-Friendly Communities

Urban Strategies recently led the development of Markham's Age-Friendly Design Guidelines, which aim for a built environment that responds to the needs of all residents, from age 0-99. Similar to the Growing Up: Planning for Children in New Vertical Communities guidelines prepared by Urban Strategies for the City of Toronto in 2020, the highly graphic, accessible guidelines draw on extensive community engagement, and address three scales of development: the neighbourhood, the building, and the unit.

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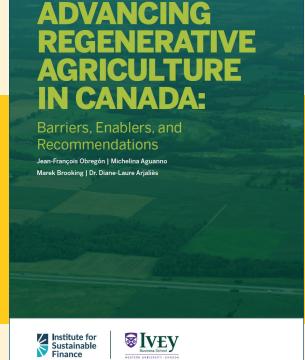




FEATURE

* The full report, Advancing Regenerative Agriculture in Canada: Barrier, Enablers and Recommendations, is available for download at https://ir.lib.uwo.ca/iveypub/66/.

Farmers and the missing middle: A match made in planning?





BY JEAN-FRANÇOIS OBREGÓN

arms punctuate rural landscapes while providing vital food to communities. Farmland is at risk in Ontario as housing policies become sprawl friendly. Between 2016 and 2021, Ontario lost farmland at a rate 319 acres of farmland daily.1 Planners have a key role to play in protecting valuable agricultural land within their municipalities for the future.

Advancing Regenerative Agriculture in Canada: Barrier, Enablers and Recommendations was released in January 2024 by researchers at the Ivey Business at Western University.* The report was funded by the Canadian Sustainable Finance Network, housed at the Institute for Sustainable Finance. I am the report's lead author, which has a chapter on planning in Ontario.

WHAT IS REGENERATIVE AGRICULTURE? WHY IT MATTERS

Regenerative agriculture has been popularized in recent years; however, there is no standard definition. Our report provides key principles that support regenerative practices, which include maintaining living roots, diversity (e.g. intercropping), minimal soil disturbance, integrating livestock, protecting soil surface (e.g. cover cropping).

Southern Ontario is one of Canada's most fertile agricultural regions. Supply chain shocks were felt

during the early part of the COVID-19 pandemic, raising food security concerns. There are nutritional benefits from better soil health due to a combination of reduced tillage, cover cropping, and diverse rotations.2

Balancing multiple public interests is an integral part of planning. There is a need for growth management policies in all cities that prevent farmland loss. Planners have a role to play in keeping population in existing urban areas to the greatest extent possible.

"Balancing multiple public interests is an integral part of planning."

WHAT IS CAUSING FARMLAND LOSS IN SOUTHERN

Changes to provincial policy and legislation have signaled an increase in sprawl-friendly development on farmland in southern Ontario. There were land valuation changes due to changes to official plans caused by municipal comprehensive reviews. This led to increased designations of greenfield areas for development, contributing to reduced agricultural

Changes in land use designations have contributed to real estate speculation from anticipated official plan and zoning by-law changes in the future. This has contributed to high land values, making it increasingly unaffordable for new farmers to come into the sector. In



fact, it is one of the largest barriers for young farmers to start their farms.

The More Homes Built Faster Act (2022) requires municipalities to spend at least two-thirds of their development charge reserve funds on hard infrastructure like wastewater and roads. This change will lead to premature construction, accelerating pressure to build services (e.g. sewage) in rural and agricultural areas, contributing to increased fragmentation. The Helping Homeowners, Protecting Tenants Act, 2023 included a draft version of the Provincial Policy Statement with updates that eliminate minimum intensification/housing targets in greenfield areas.

"Changes to provincial policy and legislation have signaled an increase in sprawl-friendly development on farmland in southern Ontario."

MISSING MIDDLE HOUSING ADVOCATES AND FARMERS: UNLIKELY BEDFELLOWS

Farmers want to protect farmland. Missing middle housing advocates want to see intensification in urban areas. Making alliances between these groups is a way to protect farmland and improve housing options. Missing middle housing includes low-rise apartments, multiplexes, and townhouses in existing urban neighbourhoods. This type of housing means more people are using existing infrastructure, such as wastewater, transit, schools. The Ontario Federation of Agriculture launched its Homegrown campaign in March 2024 to raise public awareness for preserving Ontario farmland. Its website states: "But it's time planners and developers started looking in and up before they look out."

"Farmers want to protect farmland. Missing middle housing advocates want to see intensification in urban areas."

HOW CAN MUNICIPALITIES SUPPORT AGRICULTURE?

Planners have an important role in supporting agriculture in their municipalities. Greater protections can be obtained for extension services, for example, large-animal veterinarians and equipment retailers. These amenities can be lost through fragmentation caused by piecemeal residential development, increasing farmers' transaction and transportation costs.⁴

Municipalities can make grants to support regenerative agriculture. The County of Wellington ran the Experimental Acres Pilot between 2020-2023, funded together with City of Guelph and their joint Our Food Future program. Farmers were awarded small grants to try practices like cover cropping, avoiding tillage, and rotational grazing.⁵ Over two years, the pilot awarded grants worth about \$55,000 to 30 farms in Wellington, Dufferin, and Grey Counties.⁶ This is an excellent model to replicate in municipalities, where farmland is under development pressure.

Participatory land use planning structures, where citizens hold equal or majority power over housing decision-making, can yield better results for farming and nature. Establishing local planning bodies with increased citizen representation (for example, farmers, conservationists, and scientists) can aid in achieving such results. This approach is inspired by Sherry R. Arnstein's seminal 1969 article "A Ladder of Citizen Participation."

FINAL THOUGHTS

I want to see the continuation of farming in our southern Ontario landscape. Planners can balance the demand for housing while protecting farmland by thinking creatively and boldly. The need to protect the interests of multiple publics persists as do the tools to support agriculture. I am hopeful that the approaches outlined provide planners with grist for the mill. They are just the beginning. (**)

¹Land Tenure, Census of Agriculture Historical Data (May 11, 2022). Statistics Canada. https://www150.statcan.gc.ca/t1/tbl1/en/tv.action?pid=3210022801.

² LaCanne, C., & Lundgren, J. (February 26, 2018). Regenerative Agriculture: Merging Farming and Natural Resource Conservation Profitably. *PeerJ* 6: e4428. https://doi.org/10.7717/peerj.4428.

³Ontario Federation of Agriculture (2024). Homegrown: The Story. https://homegrownofa.ca/story/.

⁴Akimowicz, M., Cummings, H. & Landman, K. (September 1, 2016). Green Lights in the Greenbelt? A Qualitative Analysis of Farm Investment Decision-Making in Peri-Urban Southern Ontario. Land Use Policy 55: 24–36. https://doi.org/10.1016/j.landusepol.2016.03.024.

⁵Dainard, J. & Grigg, J. (2023). Experimental Acres Handbook. The Corporation of the County of Wellington. https://www.wellington.ca/media/file/experimental-acres-handbook.

⁶ Dainard and Grigg (2023).



Jean-François Obregón, MPL, is a Candidate Member of OPPI and a Research Fellow at the Ivey Business School at Western University working at the Centre for Building Sustainable Value and the Sustainable Finance Lab. He is also Principal at The Urban Hulk, a consultancy focused on urban planning and sustainable finance, and the lead author of Advancing Regenerative Agriculture in Canada.

Why do we need to embrace digital twin as planners?

BY LISA PRIME, RPP, GAVIN COTTERILL, AND ADAM BECK

DIGITAL TWIN DEFINITION

The Digital Twin ISO Standard definition ISO/IEC 30173:2023, 3.1.1 is "A digital representation of a target entity with data connections that enable convergence between the physical and digital states at an appropriate rate of synchronisation." More simply put, a digital twin is a digital version of the physical world.



he smart city has so many interpretations and this extends to digital twin reference. This certainly doesn't help as we try to navigate what innovations for cities make sense. The pace of change in growing cities is substantial and understanding what adds value continues to be a challenge. However, what we do know is that reliable data continues to be a priority and is critical to how we manage investment in infrastructure. This includes tracking population growth, housing needs, and transportation activities, changing stormwater conditions, GHG reductions, and everything in between. The value of having a digital platform that provides a data-based ecosystem for city assets is tremendous.

Moving to a rules-based and improved set of standardization, over a paper-consuming and interpretative environment, does not at all have to remove the creative or flexible side of what happens in cities. In fact, predictability and consistency in process is what we all should crave in planning.

"...reliable data continues to be a priority and is critical to how we manage investment in infrastructure."

So how does digital twin support planning? We can use the power of digital and data-driven processes to support and accelerate building infrastructure of all kinds. We can also collect critical data for managing it that can transform economic, sustainability and resiliency, and social benefits. This supports an environmental, social and governance (ESG) accountability for cities.

The capability of digital tools is there. Sensors are being applied in cities for different purposes, but they are not being harnessed to support the wider value they perform by linking it all together. A true digital twin platform provides comprehensive data collection from the outset of a project plan and submission. It is incorporated into a city platform to grow digital interpretation. Leveraging 3D visualization further supports analysis for change and operations, such as traffic,

parking, storm-related infrastructure, and natural assets but also rental housing and park space per population. This is the sort of digital twin that supports social, sustainable, and economic outcomes. If we can get rid of the paper and move to rules-based digital ecosystem-based benefits, we can leverage AI to support approvals and operations. In this way, we build houses faster and ensure the infrastructure is keeping up.

As planners, we need to think more broadly and embrace technology in meaningful ways to support what we do. This tells the story for our communities and supports the change process for growth. It matters for planning, and it is a critical part of the collaborative process that builds our cities. The result is improved systems and an improved quality of life for people, and that is ultimately our goal. That is a sustainable and climate resilient smart city.

DIGITAL TWIN OVERVIEW

With digital twin capability becoming an increasingly recognized, powerful tool in addressing housing challenges, urban planners must develop a strategic plan to design and implement the capacity and capability necessary to realize its potential.

We acknowledge that every organization and project has an existing level of digital twin knowledge and capability – some very low, others advanced. Therefore, the starting point for one's digital twin journey may look very different.

It is not just the level of knowledge and capability maturity that determines where your digital twin journey starts; it can also be heavily influenced by the direction set or where the decision to pursue action has been made.

Maybe it has been initiated by an elected official, mobilizing what we call a top-down approach to digital twin advancement. In other instances, it may be driven from the bottom-up, catalysed by a project, program, individual, or other initiative.

DIGITAL TWIN PATHWAY

Regardless, a clear pathway needs to be created for decision-makers if digital twin opportunities are to be realized. Experience has shown that four key phases are commonly embraced in a successful digital twin journey, as depicted in the graphic on page 24.

It is important to acknowledge that depending on whether your approach is top-down or bottom-up, or whether you have little or substantial knowledge and capability, the entry points and order by which these steps are followed will differ. While this pathway is represented by four steps (or pillars), they do not necessarily work in sequential order and should not be viewed as a straight-line approach.

Determining your entry point into this pathway will depend on your need to garner political, financial, or other support for your digital twin program. It will also depend on whether you seek external support from human or technological enablers. You will likely need to (in part) action some of these steps.

For example, a clear "why" for your efforts is critical if you are seeking the opportunity to measure a program's success. If there are investments in building capability through technology investments, for example, clear use cases to drive your data transformation needs can support your decisions.

"A true digital twin platform provides comprehensive data collection from the outset of a project plan and submission."

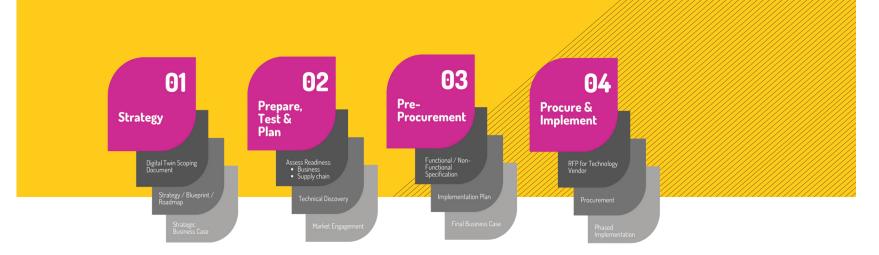
FOCUSING YOUR ACTIONS

Each pathway step comprises key components that will help guide your actions and investments. Planners should consider how these can build on existing efforts and position for digital twin success. Consider the following:

Strategy: Creating a scoping document that outlines your "why," goals, and core use cases is essential, regardless of your level of digital twin maturity. A strategic business case is essential where funding is required, particularly where public funds are being invested. A blueprint or roadmap document to describe and schedule your actions and investments will help build accountability and success.

Prepare, Test, and Plan: Ensuring you build off existing capability is essential, so





undertaking an assessment of readiness (process, standards, data, technology, etc.) can prove valuable. Depending on the outcomes of your readiness assessment, a technical discovery to identify your more profound technical capability can be highly effective. Early market engagement can support these activities and position you to get the best from vendors and other advisory support services you may need.

Pre-Procurement: If you are securing external support to help your capability development, such as procurement of technology and data enablers, it is critical to clearly define your functional and nonfunctional requirements in the form of a specification or similar document. Building on your blueprint or roadmap previously created, you should articulate how you will deliver via an implementation plan. Depending on the status of your budget and funding requirements, a final business case may be required, especially if substantial procurement packages are part of your implementation plan.

"...we need to think more broadly and embrace technology in meaningful ways to support what we do."

Procure and Implement: When you are ready, in accordance with your implementation plan, you may need to execute a request for tender process and assess responses. Regardless, your implementation plan is now fully activated,

and your core actions centred around your use cases are to be completed. The necessary benefit realization tasks will be undertaken, and the value of digital twin capability will be documented and communicated.

PATHWAY SUMMARY

Determining the entry point into your digital twin pathway hinges on securing political, financial, or other support for your program and whether external assistance is sought from human or technological enablers.

Essential steps involve clarifying the purpose ("why") behind your efforts, establishing clear use cases to drive data transformation needs, and aligning actions with key components of each pathway step. Strategically, creating a scoping document, a business case for funding, and a roadmap for accountability are crucial. Preparation, testing, and planning should leverage existing capabilities, readiness assessments, and technical discoveries. Pre-procurement involves defining requirements and outlining delivery methods, while procurement and implementation focus on executing plans, realizing benefits, and effectively communicating the value of digital twin capability.

ADDRESSING AUSTRALIA'S HOUSING CHALLENGES

Australia's housing crisis presents a multifaceted challenge beyond mere availability and affordability. Macrolevel challenges underscore this crisis, encompassing escalating property prices, insufficient infrastructure, population growth outpacing housing supply, and regulatory complexities.

These challenges converge to create a complex environment in which addressing the housing shortage requires comprehensive strategies that integrate data-driven solutions, innovative urban planning, and proactive policy interventions. Understanding and navigating these macro challenges are paramount to developing data-driven solutions that help solve these challenges.

Australia can demonstrate the transformative power of data-driven solutions by applying digital twins to optimizing land use, ensuring regulatory compliance, and fostering sustainable urban development practices.

NSW LANDIQ PLATFORM FOR LAND ASSESSMENT

The New South Wales (NSW) LandIQ platform has emerged as a game-changer in the fight against the housing crisis. By harnessing advanced spatial data analytics and visualization capabilities, the platform enables comprehensive evaluations of land parcels, leading to more informed decision-making in urban development projects.

For example, developers and urban planners can use the platform to assess factors such as land suitability, zoning regulations, environmental considerations, and infrastructure availability. This streamlines the process of identifying suitable land for housing developments,



"Australia's housing crisis presents a multifaceted challenge beyond mere availability and affordability."

making a tangible impact on the housing landscape.

The NSW LandIQ platform takes a proactive approach, facilitating a holistic view of land dynamics through the integration of open GIS technology. This allows stakeholders to optimize land use, mitigate risks, and expedite the approval processes for new housing projects. This proactive approach not only accelerates the pace of urban development but also ensures sustainable growth by aligning with environmental and regulatory requirements, providing a reassuring solution to our housing crisis.

DIGITAL TWIN VICTORIA ECOMPLY PLATFORM FOR BUILDING REGULATION ASSESSMENT

In Victoria, the eComply platform emerges as a game-changer, ensuring building regulatory compliance by applying digital twin technology. By creating digital replicas of buildings and their associated regulatory frameworks, the eComply platform provides a dynamic environment for assessing and monitoring adherence to building codes, safety standards, and planning regulations. This proactive stance not only enhances oversight of construction activities but also significantly reduces compliance errors, elevating the overall building quality and instilling confidence in the regulatory process.

Through real-time data synchronisation and analysis, the eComply platform enables authorities to monitor construction progress, identify potential violations, and intervene promptly to rectify non-

compliance issues. This enhances transparency and accountability in the construction industry and raises the overall standard of building practices, contributing to safer and more resilient housing solutions in Victoria.

CONCLUSION

Through the seamless integration of digital twin platforms like NSW LandIQ and Digital Twin Victoria eComply, Australia is leading the way in harnessing cutting-edge technology to effectively address housing challenges.

By embracing the power of data-driven decision-making and proactive regulatory oversight, these platforms are paving the way for a future where housing solutions are not only efficient and sustainable but also tailored to the evolving needs of communities. Together, they embody a vision for a more resilient and inclusive housing ecosystem, driven by innovation and collaboration.

To hear more about digital twin technology, Digital Twins 101 on Planners Connect.







Lisa Prime, MCIP, RPP is a Member of OPP and Director of Sustainability at Diamond Schmitt Architects and former Chief Planner City of Cambridge. She has over 30 years of professional experience in sustainability, community planning, and urban revitalization. Gavin Cotterill is the co-director / Founder of TEMPO Institute and the Managing Director of GC3 Digital. He has over 30 years of professional experience developing and implementing digital strategies and programs for cities and infrastructure. Adam Beck is the co-director / Founder of TEMPO Institute and General Manager Business & Market Development at HUB. He is a Planner who has spent close to 30 years in the built and natural environments with the past decade focused on digital and data enablers and how they shape sustainable communities

check out the recording of the Forum Friday:





International talent:

An answer to the shortage of planners in Ontario?

BY REGAN ZINK, RAMY SHATH, MARYAM SABZEVARI, RPP, CHRIS TYRRELL, RPP, AND RYAN DES ROCHES, CD, OCT

T's no secret that there is a shortage of planners in Ontario and across Canada. The population of Canada is projected to continue growing, and planners play a crucial role in all aspects of growth management from forecasting future growth and planning for accommodating the growth sustainably and efficiently to development review process and project and infrastructure implementation stages.

A variety of factors are contributing to the current planner shortage, which suggests it is unlikely to end anytime soon. The shortage has made it difficult to attract and/or retain professional planners, and those working in planning are stretched thinner than ever before.

One of the most immediate methods employers can use to address this shortage, for the benefit of communities across Ontario, for the profession, and for your fellow planners, is to consider hiring applicants for planning positions who have international planning education and/or experience.



HIRING PLANNERS WITH INTERNATIONAL PLANNING EDUCATION AND EXPERIENCE

Employers in Ontario often require candidates to possess planning experience in Canada, even if the Professional Standards Board for the Planning Profession in Canada (PSB)'s Prior Learning Assessment Recognition (PLAR) process accepts Canadian or international planning experience as part of its experience requirement.¹

Similarly, employers also often indicate their preference for, or even mandate, that applicants be RPPs or eligible to become RPPs. This is something that OPPI both encourages and appreciates, for a variety of reasons, but particularly because Candidate and RPP members of OPPI are bound to the Professional Code of Practice and are required to define and serve the public interest.

Admittedly, it therefore seems counterintuitive for the regulator of the RPP designation in Ontario to encourage hiring of non-RPPs for planning positions, but there is logic to this approach.

"...those with international education/ experience may well qualify for Candidate membership, critical to RPP certification..."

THE MISALIGNMENT BETWEEN THE IMMIGRATION PROCESS AND THE PATH TO RPP

Many applicants with international planning education and/or experience have gone through an extensive process prior to immigrating to Canada to validate their education and professional experience against the current National Occupation Classification of "urban and land use planners." This National Occupation Classification includes academic requirements, which specifies a bachelor's degree at minimum (which is consistent with the requirements of the PSB's PLAR route to certification). Additionally, applicants should have a minimum of three consecutive years of experience in planning, and it is mandatory to submit experience certificates along with their immigration applications.

This is important, because it indicates that those with international education/experience may well qualify for Candidate membership, critical to RPP certification, through the PLAR route. Further, because being employed in planning is currently a requirement for the certification process, hiring applicants with international planning education/experience could be the necessary catalyst for eventual RPP certification. In fact, there are many individuals with international training/experience who may immediately qualify for Pre-Candidate membership.³

Applicants without a degree from a Canadian university should not be precluded from consideration on that basis. Often, the university degree exists to demonstrate a capability of the applicant to think critically and apply reasoned, professional judgment — a critical skill in many professions including planning. Furthermore, those with planning degrees from non-Canadian universities are often familiar with the concepts of planning and indeed conversant in the core competencies of the planning profession in Canada.⁴

The "learning curve" for an internationally trained/educated planner is more about becoming acclimatized to the realities of planning in Ontario (e.g., the legislative and policy framework that dictates how planning is conducted) and not learning how to "do" planning; this is not particularly different from the learning curve of a recent graduate of a domestic planning program. The learning curve of a recent graduate often includes job specific skills and contextual nuances that are coached and developed through on boarding and regular checkins with new employees, regardless of their origin or educational background.

Moreover, planners in Canada often use best practices and precedents from international projects. The principles of creating a complete community that is resilient and vibrant is, generally speaking, universal. Internationally trained planners bring to the table a different perspective based on their familiarity with a context that either is dealing with the same issues (e.g., affordable housing, climate crisis) we are dealing with in Canada or have found a path forward to resolve them.

THE ROLE OF POST-SECONDARY INSTITUTIONS

Post-secondary institutions in Canada can play a crucial role in helping to expedite internationally trained planners or professionals within environmental disciplines in getting accustomed to the rules and regulations of planning in Ontario.

Post-graduate certificates in Ontario (such as the Sustainable Urban and Transportation Planning Program at Seneca Polytechnic) as well as accelerated master's degree programs (such as MPLAN at University of Guelph) and other similar programs are designed to provide professionals with competencies based on the Canadian context. These programs often include courses on history and theories of planning in Ontario, planning framework and legislation in Ontario, and a more focused view of issues in planning, including sustainability, mobility, and planning in rural, Indigenous, and remote communities. The short duration and flexible delivery of these programs also allow professionals to study while employed, making it easier for employers to use these programs as a form of training if needed.

Where possible, post-secondary institutions should offer bridging programs for professionals from related disciplines. A planner with an extensive background in





these disciplines is a valuable asset for employers due to the multidisciplinary nature of planning. Post-secondary institutions could provide the necessary education to make it possible for these professionals to join the planning industry.

"Often, the university degree exists to demonstrate a capability of the applicant to think critically and apply reasoned, professional judgment a critical skill in many professions including planning."

CASE STUDIES: THE EXPERIENCES OF SOME **INTERNATIONALLY TRAINED PLANNERS IN ONTARIO**

The following case studies are the real, anonymized experiences of individuals with education and experience in planning from abroad. These case studies illustrate a variety of challenges and barriers faced by those with education and experience who wish to practice planning in Ontario.

Person 1 is an internationally trained planner who completed their bachelor's degree in planning in Iran, a master's degree in urban design from the Bartlett School of Architecture (University College London, UK), and a master's in advanced architectural studies from the same institution. Bartlett/UCL is ranked #1 among architectural schools worldwide according to the QS World Ranking, and Person 1 graduated with merit. They also worked for several years in their home country, including collaborating with municipalities on an awardwinning project that was published multiple times and nominated for the Aga Khan Architecture Award during its implementation stage. Before moving to Canada with their family, they managed a team and several projects.

Upon moving to Canada, Person 1 faced the challenge of starting from scratch like many immigrants. Fortunately, they secured a position at a reputable planning and architectural firm, albeit in an entry-level role with a salary of \$38,000 per year, which barely covered their monthly expenses.

The position was demanding, requiring weekend work and unpaid overtime, often totalling 60-70 hours per week. Although grateful for the opportunity to enter the industry, the role did not match their skills, knowledge, or experience. These supporting roles and entry-level positions are typically more suitable for students and recent graduates proficient in computational graphics and modelling. Person 1's core competencies, such as project management, policy development, negotiation, and consultation skills, were not taken advantage of.

This opportunity served as a stepping stone for Person 1 to excel over time. Ten years later, as a senior urban designer with a major Ontario municipality, Person 1 is well-versed in the planning framework, policies, and legislation in Ontario. They have been a full member of OPPI since 2019 and is currently a sponsor for Candidate members, helping them become planners who uphold professional standards and serve the public interest.

Person 2 has a very diverse experience expanding to 15+ years in different facets of planning in four different countries. Their last position prior to immigrating to Canada was as project manager for seven master planning development projects in Dubai. Person 2 holds a bachelor's degree in city and regional planning and a master's degree equivalent in project management.

Since arriving in Canada a decade ago via the skilled immigrant (express entry) route, Person 2 has completed two certificate programs in sustainability management from York University and Toronto Metropolitan University and has also completed the Toronto Region Immigrant Employment Council (TRIEC) Mentorship Program.5

They also did their due diligence to break into the planning profession in Canada, but unfortunately, without any success. Despite the numerous job applications, it is still very hard for Person 2 to get a response from employers, let alone a call for an interview for a mid-to-senior level planning position to match their years of experience.

Person 2 has tried their best to expand their professional network, as they have learned it's a key component to entering the profession here. Since arriving in Canada, Person 2 has been under-employed

🔷 LEARN MORE

POST-GRADUATE PLANNING PROGRAMS*

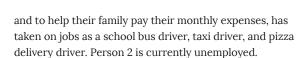
Master of Planning: University of Guelph, expedited master's degree, one year

Sustainable Urban and Transportation Planning: Seneca Polytechnic, graduate certificate program, two semesters

Graduate Diploma in Planning: University of Waterloo, graduate diploma,1.3 years

Certificate in Urban Planning Studies: Queen's University, four courses

*List is not exhaustive.



THE BENEFIT TO THE PLANNING PROFESSION: INSIGHT, **EXPERIENCE, AND PERSPECTIVE**

If you consider the planning competencies, it is abundantly clear that planning as a profession is not bound by the location of practice. Leadership, plan and policy making, critical thinking, interpersonal skills, human settlement, and others are soft or transferable skills that transcend both time and place.

The transferability of planning competencies is what allows Ontario trained planners to work on international planning projects or for global consulting firms. In fact, it is quite likely that Ontario trained planners are valued on international teams for their unique experiences, perspectives, and knowledge. This same logic is what makes planners who have completed their education and started their career internationally an asset to Ontariobased teams. Planning teams are strengthened when individual team members have developed their planning competencies through diverse experiences and practice.

Additionally, planners who have studied and worked internationally and have immigrated to Canada through the Federal Skilled Worker Program have years of professional experience, skills, and insight to contribute. They have also been vetted by the federal government through the immigration process, which has a number of requirements, including an accredited university education, three consecutive years of industry experience, and proficiency in the English language.

Furthermore, since they have arrived, many internationally trained planners have completed programs such as Canadian university education, mentorship, and volunteering and have done other jobs that make them familiar with the Canadian workplace culture. Just as any senior planner in Ontario would attest, years of practice and experience, in addition to their educational foundation, have contributed to internationally trained planners' understanding of the public good, political acumen, analytical and big picture thinking, and overall proficiency as a planner.

In a world that is increasingly globalized, communities and, as a result, planners, are facing similar challenges. Sustainability, conservation, climate change, urbanization, changing family and social dynamics, cultural heritage - these topics are centre stage to planning across all continents. Internationally trained planners often have diverse experiences with projects of different scales in multiple different countries and are comfortable navigating complex policy frameworks and regulatory standards.

It's also important to consider that not all work is hyper-local and even when a project is embedded in local context and identities, planning competencies



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THE ROLE OF AI IN INTEGRATING **INTERNATIONALLY TRAINED PLANNERS**

Language skills have often been a barrier to integrating internationally trained planners into the profession in Canada. This is understandable in a profession where communication skills are crucial for daily tasks such as consultation, report writing, negotiations, and presentations. As a result, planning firms may prefer to hire native or fluent English speakers over experienced internationally trained planners.

Advancements in AI help bridge this gap. By automating routine and mundane tasks, AI allows planners to focus more on higher order, creative, and strategic aspects of their work, where seasoned planners can leverage their years of experience and critical thinking.

AI tools can also analyze large texts and documents, assist with report writing, prepare graphics and presentations, and create interactive consultation platforms. This reduces reliance on language proficiency and instead emphasizes the need for a deep understanding of concepts and their application in specific settings.

provide professional planners with the tools they need. There is a good chance that someone who has trained and worked in different countries and contexts has new ideas, approaches, and solutions that your team is not aware of or has not yet considered.

"...planning as a profession is not bound by the location of practice."

Planners who have immigrated to Canada may have a better sense of population needs, community preferences, and cultural nuances that are essential to effective planning. In a profession largely focused on inclusivity and democratic processes, it is important that different parts of the community, including different demographics, ethnicities and equity-deserving groups, have representation. This will contribute to the communities with diverse backgrounds a sense of self-determination, political contribution, and control over their environment.

As we continue to experience a shortage of planners across Canada, internationally trained planners are part of the solution and have important skills, experiences,

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and perspectives to contribute. However, without the support of Ontario planning employers, they are unable to join the profession. This article is a call to action for all hiring managers, senior staff, and managing partners to hire internationally trained planners at all jobs levels. It is also a call to action that contributes to planning being more welcoming to communities and members of the public, as well as to aspiring planners, who do not currently see themselves in the profession.

"Planners who have immigrated to Canada may have a better sense of population needs, community preferences, and cultural nuances that are essential to effective planning."

INTERNATIONAL TALENT AVAILABLE

As a profession, we need to reflect inwards and be honest about the barriers we are creating – who is let in and who is left out. For far too long, we have largely failed to consider and value international planning education and experience. Many other industries actively seek out international skilled talent.

Internationally trained planners have a love for the profession and have chosen to make Canada their home. However, they are caught in a catch-22 – to be eligible for the PLAR route to certification, they must be employed in planning, and to be employed in planning, most jobs require them to be an RPP or Candidate member. Planners in this position do not have a clear path to join the profession. As a result, our profession is missing out on world-class talent.

We all have an important role to play in breaking down barriers to entry and valuing planners with international education. The profession can only benefit from being more inviting of diverse perspectives and experiences.

¹Prior Learning Assessment Recognition (PLAR). https://psb-planningcanada.ca/certification-process/application-process/prior-learning-assessment-plar/

https://www.mentoringpartnership.ca



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Maryam Sabzevari, RPP, is a Member of OPPI and an urban planner and designer with extensive experience in placemaking, sustainable design, transit-oriented communities, development review, urban revitalization, and policymaking. She is currently Senior Planner in Urban Design at the City of Toronto and is also a dedicated educator who designed and co-founded the Graduate Certification Program in Sustainable Urban and Transportation Planning at Seneca College. Chris Tyrrell, MCIP, RPP, is a Member of OPPI and an accomplished urban planner and professional services executive with over 28 years of experience. Chris is currently the National Vice President of Planning, Transportation and Infrastructure at WSP Canada. Ryan Des Roches, CD, OCT, is OPPI's Registrar & Director, Special Projects.



 $^{^2\}mbox{Government}$ of Canada. National Occupation Classification: urban and land use planners.

³ OPPI Membership. https://ontarioplanners.ca/become-an-rpp/oppi-membership#MEMBERSHIP%20CATEGORIES

 $^{^{\}rm 4}$ OPPI. Competency Tree. https://ontarioplanners.ca/becomean-rpp/competency-tree

 $^{^5\}mathrm{Toronto}$ Region Immigrant Employment Council (TRIEC) Mentorship Program.



ociety often thinks of and understands accessibility as being only necessary for the demographics of the population that need it – those individuals who are part of special populations. Individuals that comprise special populations are those who have visible and invisible disabilities which are physical or intellectual in nature. The types of accessibility considerations and complexity of assistive devices are numerous and nuanced.

But what is even more important to understand is why establishing and garnering a knowledge base and system or framework of compliance is important for society as a whole. It is relevant to anyone because its parameters and stipulations allow for anyone to actively participate in and contribute to how the world progresses.

The Accessibility for Ontarians with Disabilities Act (AODA) was mandated by the Government of Ontario in 2005 to ensure that all aspects of the public and private sector have a framework that is grounded in underpinnings of accessibility. The Act relates to standards of customer service, communication and its various applications and tools, transportation, the built environment of public spaces, and employment. The AODA standards are part of a larger stipulation called the Integrated Accessibility Standards Regulation

(IASR), which requires that all companies, nonprofit organizations, corporations, and government organizations with more than 20 employees have an accessibility policy and plan in place, update it every five years, and make accessible considerations to procurement and customer service.

One of the most important realizations for businesses and employers to see is the value-add of individuals with disabilities to company culture. Currently, numerous courses and education modules are available to help all Canadian employers implement policy and practices related to accessibility and why and how it applies to facets of society, such as communication and resource development. Individuals with visible and invisible disabilities represent a largely untapped pool of potential. They bring a strong, diverse skillset they can apply to varying situations and team scenarios, a high level of integrity and commitment to their work, and a willingness to learn new skills.

"...establishing and garnering a knowledge base and system or framework of compliance is important for society as a whole..."

According to Accessibility Services Canada and the Bank of Canada, the increasing population of individuals with disabilities, which is broad in its nature, has an

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estimated spending power of \$25 billion annually. The individuals who comprise this population are required to invest large amounts of money for their livelihoods, including tending to diverse daily and health needs, but they also contribute to the overall improvement of society in every way. The Accessible Canada Act, which was instituted in 2019, coincides with AODA. Both were mandated to establish the country as barrier free by 2040 by establishing avenues to identify, remove, and prevent barriers. The Act relates to societal aspects of governance, employment, public built environments, and methods of transportation.

"...the value-add of individuals with disabilities to company culture."

For planners, understanding all aspects of an environment's accessibility from infrastructure to procurement to resources should be extended to all aspects of development and site planning.

With legislation instituted to regulate accessibility, it is commonly assumed that it is enforced and that there are few barriers and misunderstandings of its importance; however, this is not the case. Numerous businesses of all sizes fall behind in maintaining, adhering to, and updating the policies and practices that constitute an accessible workplace and employment culture.

Gaps in the adherence of accessibility standards often exist because employers and companies or social jurisdictions are missing the person-first informed perspective of an employee or consumer of their services with a disability. It's crucial to understand that organizations, businesses, corporations, and public entities should prioritize and adhere to accessible policies, procedures, and practices — not to check a compliance box but to ensure they serve all individuals equitably. Organizations should be aware of changes that need to be enforced and/or made to built environments — for example, ramps to access entry ways, wave-to-open door switches, wider door frames, lower counter tops to serve customers, and grab bars.

Another aspect of accessibility compliance is communication. Mechanisms that should be in place include enlarged text on documents, captions on social media content, and person-centred communication that doesn't identify an individual as being defined by a physical or intellectual challenge within companies and public spaces.

Some examples of public spaces, businesses, and academic institutions that are establishing appropriate measures and policies for accessibility include Brock University and other academic institutions that prioritize adaptive recreation, sport, and student services. Financial institutions such as TD Bank have practices in place so Persons with Disabilities are able to access their services equitably and also have

robust DEI programs. The Abilities Centre in Durham Region prioritizes infrastructural accessibility from the perspective of ramps, doorways, and door switches as well as fitness and sport equipment and programming parameters. Another example of an organization that is continually furthering policies and procedures of accessibility is Toronto Pearson International Airport. Some examples of where policies are changing relate to employee training and customer service as well as at the service kiosks, where accessible communication tools such as larger print and ASL are incorporated. It is crucial to realize that with every accessibility prioritization, practices need to be updated to suit varying and sometimes rapidly evolving needs.

Societal culture operates in such a way that all citizens and organizations need to be alerted to a problem for some form of change to occur. What must occur in relation to the understanding of accessibility – in its meaning, importance, implementation of practices, and creation of environments that uphold its true standards – is a paradigm shift.

"Another aspect of accessibility compliance is communication."

A call-to-action that leads all to understand that accessibility is not only necessary for specialized environments, such as hospitals, medical centres, clinics, recreational facilities that are solely for the demographic that has visible physical disabilities, and adapted parks and other environments. Accessibility is needed in all public spaces, locations where daily necessities like grocery shopping and banking are performed, and where assistive technologies create a sense of comfort and ease of use and empower those with varying needs as well as their neighbouring citizens, peers, and colleagues.

As a society that hungers for innovation and consistently looks to create conditions where nothing stagnates, we need to perceive accessibility as the mechanism for progressive policies, fundamental procedures, and attitudinal innovation. (\(\vec{Y}\))



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Modern information communication technologies for understanding wildland fires

BY RICHARD PURCELL, ABDUL MUTAKABBIR, KSHIRASAGAR NAIK, SRINIVAS SAMPALLI, CHUNG-HORNG LUNG, THAMBIRAJAH RAVICHANDRAN, AND MARZIA ZAMAN

orest fires, also known as wildland fires, are uncontrolled blazes that consume forest vegetation. While integral to ecosystem dynamics, their encroachment on human settlements, especially in the wildland urban interface (WUI), presents significant risks. The WUI, the zone where human habitation blends with undeveloped wildland, has experienced a rise in fire incidents due to expanding residential development begun post World War II and more recent shifting climate conditions.

In 2021, wildland fires impacted approximately 4.3 million hectares of Canada's forests. Despite a below-average total area burned in 2023, regions like the Maritimes and western territories experienced more active fire seasons than usual. Such fires cause significant ecological disruption, economic losses, and health hazards, demanding substantial investments in recovery and management strategies.

Traditional fire modelling techniques, such as those producing the Canadian Forest Fire Danger Rating System, have been fundamental in assessing fire potential. These empirical models support forest managers, emergency services, and the public with crucial fire weather information. However, they may struggle to adapt dynamically to the rapid physical and environmental changes characteristic of WUI areas.

Wildland fire modelling is transforming with the introduction of advanced technologies that enhance detection, monitoring, and predictive capabilities. Modern information communication technologies, such as satellite imaging, smoke cameras, drones, and the integration of IoT devices throughout the WUI, represent the cutting edge in gathering, analyzing, and communicating data. These tools enable us to collect environmental data continuously, which can feed into AI-driven models that not only predict the spread and intensity of fires but also generate multiple detailed burn probability maps. These maps are instrumental in predicting potential fire movements, identifying optimal locations for fire breaks, and guiding evacuation strategies.

Moreover, the processing of extensive and diverse datasets using machine learning and deep learning technologies provides insights into predicting fire occurrences with increased accuracy. These models excel in managing the complexities of fire behaviour, though the creation of homogeneous datasets is challenging due to the temporal and spatial nature of forest fire data, ownership by various agencies, and the data existing in varying formats. Additionally, the

infrequency of wildland fires compared to non-wildland fire days leads to highly imbalanced datasets, with most data coming from non-wildland fire days.

By forecasting potential fire start points, paths, and intensities, these technologies can facilitate pre-emptive actions and strategic resource deployment, significantly reducing the impact of fires on human settlements. The integration of remote sensing, IoT technologies, and AI have revolutionized wildfire management. Understanding wildland fires means developing a comprehensive knowledge base and predictive capabilities regarding the occurrence, spread, and management of wildland fires. It involves interpreting complex data to forecast fire behaviour and devising effective strategies for prevention, mitigation, and response.

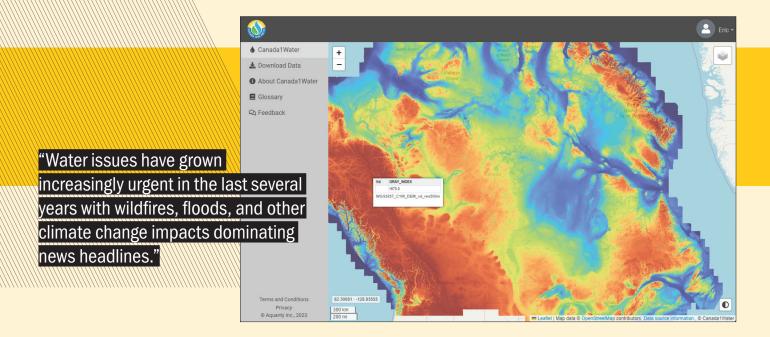
As urban expansion into forested areas continues, the role of these advanced technologies in fire management becomes increasingly vital, presenting new opportunities to protect communities and promote sustainable land use in fire-prone regions.



Richard Purcell, Abdul Mutakabbir, Kshirasagar Naik, Srinivas Sampalli, Chung-Horng Lung, Thambirajah Ravichandran, and Marzia Zaman. Wildfire Research-Analytics Initiative (WIRE-AI) has been working on a Natural Science and Engineering Research Council of Canada (NSERC) Alliance Mission project since 2022. WIRE-AI's goal is to assist forest fire researchers and practitioners with machine learning/deep learning (ML/DL) models, tools, frameworks, and advanced datasets. These resources enable the application of data-driven techniques to model forest fire growth, predict forest fire risk, and estimate burnt areas. Research objectives also include the use of IoT-based sensors, drones, crowd-sourced data, and state-of-the-art communication technologies for remote forest monitoring, forest fire suppression planning, and ensuring public safety. For more information, please contact: Dr. Marzia Zaman: Phone (613)-325-9709: Email:marzia@cistel.com.



FEATURE



Bridging the translation gap: How can scientists make water data more planner-friendly?

BY ANDREW KIRKWOOD

ater is a critical resource but it's not always easy to plan for. The science behind it can be highly complex, demanding multidisciplinary expertise and huge amounts of data. The public-private CanadalWater modelling team hopes its continental-scale simulation of the country's hydrologic cycle will help make water data more meaningful and usable for planners at all levels.

SITUATION CRITICAL

Water issues have grown increasingly urgent in the last several years with wildfires, floods, and other climate change impacts dominating news headlines. Less than two months into 2024, Agriculture and Agri-Food Canada's Canadian Drought Monitor reported extreme or severe drought conditions in large areas of British Columbia, Alberta, and Saskatchewan – prompting The Hill Times to express concerns about the country's potential to feed itself.¹

Worldwide, the Global Commission on the Economics of Water predicts a 40 per cent freshwater shortfall as early as 2030.² Researchers concerned with groundwater in particular have invoked the word "crisis," determining that about one-third of the world's large aquifers were depleted past the point of rejuvenation by 2021.³

Policymakers and planners are aware of the importance of water and the need for climate-resilient strategies. Yet in many parts of the country, especially rural areas and the North, they lack meaningful data. Isabelle de Grandpré, a hydrogeologist with the Government of the Northwest Territories, acknowledges she and her colleagues "have very limited" groundwater knowledge and capacity.



Even where information does exist, planners may be focused on other issues.

"There's still not a lot of thinking about geology, the subsurface, or groundwater regimes," says Victor Doyle, RPP. "But that's what's needed. If you look at Southern Ontario, the region is expecting another five million people. Most growth has been along the shore of the lake but now it's moving to inland watersheds and groundwater watersheds — increasingly without sufficient knowledge if there will be sustainable potable water."

Time and competing pressures are additional factors that hamper the dissemination of water science out to planners.

"...C1W addresses another area where many local or regional modelling initiatives fall short: integrating climate factors."

"We have a lot of data and we still sometimes struggle to communicate with the planning community," says Mason Marchildon, a hydrologist with Ontario's Oak Ridges Moraine Groundwater Program (ORGMP). "They're very busy, and they're not given the time to learn how to integrate the data we collect on their behalf into their planning process."

SEEING WATER SYSTEMS FROM END TO END

Levelling the playing field for resource-strapped jurisdictions and making water data more accessible were foundational goals for Canada1Water (C1W), a joint R&D project co-led by Natural Resources Canada (NRCan) and the water science company, Aquanty.

In spring 2024, C1W unveiled the results of its initial three-year effort: a full-scale model of Canada's hydrologic system – including regional climate inputs – with projections out to the middle and end of the century. Users can access the simulation results and underlying datasets at no cost through a public web portal https://portal.canada1water.ca/.

"We're hoping this will fill some longstanding gaps and make it easier for people to get at the information they need for long-term planning," says Hazen Russell, project co-lead and a sedimentologist with the Geological Survey of Canada at NRCan.

The C1W model comprises all of continental Canada plus Baffin Island, totalling nearly 12 million square kilometres, and also accounts for transboundary watersheds shared with the United States. With a fine resolution of 0.5 kilometres to one kilometre, it can zoom from the regional level to national scale – cutting across political boundaries for an accurate picture of water systems from end to end. That opens the way for a standardized approach to understanding water resources

across multiple watersheds and provides a standardized dataset for analysis and decision-making.

"If you look at water and wastewater servicing in Ontario – and probably elsewhere – a municipality might have jurisdiction over a waterway but not the whole watershed. The boundaries are artificial," says Michele Grenier, executive director of the Ontario Water Works Association (OWWA). "There's potential for a tool like this to facilitate master planning at the watershed level and beyond."

Doyle agrees that such collaborative multi-scalar planning is critical and says it has to be driven by higher levels of government.

"You can't escape the fact that the interconnections between areas have a direct impact on water resources and biodiversity," Doyle says. "But it's not realistic to think you can leave it up to a hundred different communities to coordinate among themselves. The provincial and territorial ministries have the scale and jurisdiction to make it happen and do the cumulative impact analysis."

ACCOUNTING FOR CLIMATE CHANGE

In addition to providing a big-picture inter-basin and transboundary perspective on water systems, C1W addresses another area where many local or regional modelling initiatives fall short: integrating climate factors.

"Climate modelling is very different from hydrologic modelling," says Steven Frey, Aquanty lead researcher and C1W's other project co-lead. "It's complex and hard to downscale accurately from global models, which are always the starting point. Even jurisdictions that have hydrology and hydrogeology expertise can find it hard to incorporate climate as well."

Melissa Bunn, a research scientist with the Geological Survey of Canada, has encountered that lack of climate data firsthand. One of her areas of focus is the 7,800-square kilometre Northwest Territories' Carcajou Canyon.

"We need to look for those largescale permafrost thaw areas and try to anticipate how much sediment could move through river systems..."

"For scales like Carcajou or smaller, the climate piece is usually missing," Bunn says. To better understand the impacts of climate change where continuous and discontinuous permafrost mix, she built a highly localized nested model of the canyon – using C1W and its climate data as a starting point.

Permafrost is of particular concern to planning in the North, notes Northwest Territories hydrologist Ryan Connon. He's had the opportunity to advise the Gwich'in Land Use Planning Board on the use of hydrological



models. In recent years, retrogressive thaws have consumed some of the Gwich'in region's permafrost, driving sediment into river networks.

"It chokes up waterways, changes nutrient cycling, and can impede access," Connon says. "We need to look for those large-scale permafrost thaw areas and try to anticipate how much sediment could move through river systems, which are the arteries of life for a lot of communities in the North."

A SHARED STARTING POINT

Given its scale, C1W can't - and was never intended to - replace local water data and modelling initiatives. But as a stringently bias-corrected, integrated and standardized model, it provides a foundation for shared understanding of groundwater, surface water, and climate interactions and trends across jurisdictions and sets the stage for higher-resolution modelling initiatives in any region/ community in Canada.

"There will always be a need for local-scale models," says Marchildon. "CIW's large-scale model doesn't have the detail on its own for watershed planning, but having something nationally standardized, such as recharge under a changing climate - I can see the utility."

Doyle suggests a logical evolution would be for C1W to serve as a collective, multi-tier database that gets added to over time, augmenting the larger-scale model with local/regional data and enabling further articulation of smaller-scale ones.

"Planning needs to be the discipline that integrates all of this," Doyle says. "Planners are the assemblers, where all the information goes to be sorted out." In his view, building up that role and capacity may require continuing education for planners and drumming into university graduates the importance of adopting integrative, bigpicture perspectives.

Beyond the initial portal launch, the C1W team sees many opportunities to build on the model and generate normalized annual indicators for characteristics such as groundwater recharge or total water storage.

"For planners and decision-makers, being able to see trends in a really simple way - when indicators are low, normal, or high - would be a big advantage," says NRCan's Russell. "It turns the background science into something you can immediately act on." (\varphi)

- ¹Canadian Drought Monitor reports extreme or severe drought conditions in large areas of British Columbia, Alberta, and Saskatchewan (February 12, 2024).
- ² Global Commission on the Economics of Water (2023). Turning the Tide: A Call
- ³Wood, Warren W. and Cherry, John A. (2021). "Food Security and Inaccurate Ouantification of Groundwater Irrigation Use," Groundwater, November-December 2021

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PUBLIC DATASETS, FREE OF CHARGE

As part of its mandate to improve access to information, C1W has published its full series of datasets for public use:

Geology

- Model Boundaries
- Digital Terrain Model
- Lake Bathymetry
- Drift Thickness / Top of Bedrock
- Surficial Geology
- Bedrock Geology
- Soil Maps
- Stream Network
- Land Cover

Climate

- Leaf Area Index (historic)
- Soil Temperature (normal)
- Air Temperature (historic and future)
- Potential Evapotranspiration (historic and future)
- Precipitation (historic and future)

Models

- 3D Model Meshes (coarse)
- 3D Model Meshes (fine)
- GW Well Observations (historic)
- SW Hydrostations (historic)
- HGS Input files (model)

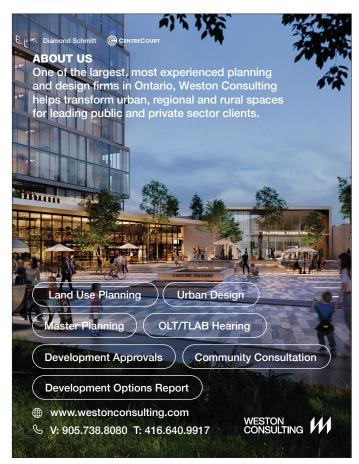
Projections

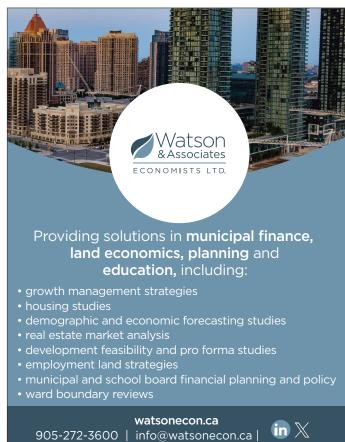
- Water Inventory (historic and future)
- Hydraulic Head (historic and future)
- Stream Flow (historic and future)
- GW-SW Exchange (historic and future)
- Climate (historic and future)



Andrew Kirkwood is a freelance writer based in Ottawa, with a focus on science and technology topics.













INTERVIEW



BuildingIN: Helping municipalities remove roadblocks to increasing housing supply

INTERVIEW WITH ROSALINE J. HILL, RPP

Building on six years of housing research, a powerhouse of experts has come together to tackle some of the most frustrating complexities that prevent municipalities from actually meeting housing supply targets.

Led by architect and urban planner Rosaline J. Hill, RPP, former City Councillor Catherine McKenney, housing expert Steve Pomeroy, economist Neil Saravanamuttoo, and housing designer Alastair Whitewolf, BuildingIN officially launched this past June.

BuildingIN is a municipal program for low-rise infill that works at scale to provide multi-unit, replicable housing constructed using modular or conventional construction to fit into established, walkable neighbourhoods near transit, shops, services, and parks. This is housing that is fast and plentiful, as well as affordable to construct, service, heat, cool, and maintain, making upgrades to existing communities affordable for municipalities.

The BuildingIN program has the potential to creating vibrant, complete neighbourhoods at a scale never seen

before in Canada by opening up missing middle, infill opportunities for builders and enabling municipalities to meet their housing targets.

"There are lots of repeatable business models in that little niche, and that's got the potential to produce housing development opportunities in excess of housing need," says Hill. "It's fantastic how much capacity there is in our older neighbourhoods. Using form-based zoning, infill can include as many as 12 units in low-rise buildings that are sized and designed to fit right in."

"...vibrant, complete neighbourhoods at a scale never seen before in Canada by opening up missing middle, infill opportunities..."

BuildingIN was selected as a semi-finalist by the Canada Mortgage and Housing Corporation in the Housing Supply Challenge and the money awarded has allowed them to fully start the program. Hill says some of the municipalities they are talking with right now are interested in the entire program, and BuildingIN





can work with them to get some regulatory overlays and investment strategies in place.

"Others have expressed interest in some of our smaller products to analyze and understand the potential of their neighbourhoods, to understand the differences between their neighbourhoods and the housing potential that is embedded in their older neighbourhoods," she says.

Hill adds that there is also quite a bit of interest in BuildingIN's housing market response simulation, because so many municipalities don't have the capacity to anticipate the response from the housing industry to new regulations that allow, for example, four units per building.

"You don't actually have to put new regulations in place to know how the market will respond," she says. "Before you go through all of that pain and change all those regulations, let us simulate the outcome for you."

While simulations of this sort are fundamental in many industries, it is newer to the planning profession.

"It's fantastic how much capacity there is in our older neighbourhoods."

"Culturally, there's a level of awareness about the value of analytical simulation," says Hill. "But within the planning industry, it is very, very new, and I think it's because we have not been working together — the municipal planning industry and the housing development industry. Within our team, we're bringing together those experiences and that expertise and we are able to provide that service, which I think is pretty invaluable."

The ideal neighbourhoods tend to be pre-1980, with smaller aging homes on larger lots and already

zoned for low-rise housing. By using the criteria filter in BuildingIN's GIS mapping tool, then calculating the number of lots that can be anticipated for any municipality given historical data points, you get an idea of how many new units are possible on the available land. The results are exciting.

"They usually quite significantly exceed the need for low-rise housing in a city, while at the same time maintaining the low-rise quality of neighbourhoods," says Hill.

Another key component of the BuildingIN program is working with municipalities to choose the most appropriate neighbourhood parking solutions and to reinvest in their neighbourhoods.

"New housing brings new tax base to reinvest in their neighbourhoods strategically so that it maintains that flow of new development and new housing and shifts neighbourhoods to become more complete," she says. "From the perspective of the planning industry, this is also the answer to complete and walkable communities, and it allows the market to move us towards that dream we've had for 50 years and haven't been able to achieve."

"We are confident that we've got a solution that is a game changer," says Hill.

Learn more about BuildingIN, including architectural drawings for nine to 12 homes on lots +60' in width and +130' in depth and for six homes on lots +39' in width and +100' in depth, at www.buildingin.ca. Even if your municipality isn't ready for the full BuildingIN program, you may find the variety tools offered helpful.

COLUMN

POLICY

Increased delegation with stronger public oversight of planners will speed up approvals



BY SAAD BAIG

"Ontario is moving in the right direction on delegation."

here is no question that housing is front and centre for all orders of government. From numerous housing bills introduced by the Ontario government to the 26-page "Canada's Housing Plan" tabled by the federal government to efforts by many municipalities to move to more "as-of-right" developments – all governments seem to be aligned on the objective to build more housing and build it faster.

Professional planners can play a key role in supporting a more efficient and effective development approvals process. Many technical decisions that simply implement council-approved plans and policies come back to municipal councils for approval. This adds time to the process without additional value. It also risks politicizing approvals of a technical nature by creating another avenue for opposing members of the public to pressure elected councillors. A survey done by OPPI found that delegating technical planning approvals to staff can save four to five months in the approvals process.

"Professional planners can play a key role in supporting a more efficient and effective development approvals process."

Ontario is moving in the right direction on delegation. The Province of Ontario expanded the ability of municipal councils to delegate minor planning approvals and made site plan approval a mandatory delegation to expert planning staff. However, other technical planning approvals, including draft plan of subdivisions, lifting of holding provisions and part lot control, consents within the built-up area, and validation certificates should also be mandatory delegations. Minor variances present another opportunity to streamline the process by providing authority to planning staff to

make decisions. Currently, this approval is at the purview of local committees of adjustment where non-expert citizen appointees hold meetings, review recommendations, and make decisions on these matters.

In tandem with more decision-making authority for expert planning staff, Ontario should ensure there is appropriate oversight of professional planners. The Ontario Professional Planners Institute (OPPI) serves as the professional regulator, but it lacks full jurisdiction to address bad actors in the profession. Under the current system, a Registered Professional Planner can simply resign his or her membership to prevent OPPI from investigating a complaint or enforcing a disciplinary action. The individual can then continue serving as a professional planner without any oversight by a professional regulatory body. The Province Ontario should empower OPPI by creating a public legislative framework that provides full authority to regulate the conduct of professional planners in Ontario.

Increased delegation of technical planning approvals coupled with a stronger professional regulator will depoliticize and streamline development approvals in Ontario.

Saad Baig is a Director in StrategyCorp's Public Affairs Group. He provides strategic advice to clients navigating complex government relations challenges across a variety of sectors. Saad previously served as senior advisor to several cabinet ministers including the Ministers of Finance, Transportation, and Infrastructure in the Ontario Government.

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Help wanted: Innovative approaches for workforce development in rural and northern Ontario

BY RYAN GIBSON, HEATHER GRAHAM, PAUL SITSOFE, NIJU MATHEW, SARAH-PATRICIA BREEN

sk any Ontario employer and they could share stories of difficulty in recruiting and retaining employees. This challenge is not unique to economic sectors, skills required for the work, or geographic location. Although the challenge to find and retain employees is not new, the COVID-19 pandemic created new conditions that have hindered an already difficult situation. The inability to find and retain workers compromises the competitiveness and prosperity of rural and northern businesses and communities. The future of these businesses and communities is dependent on appropriate and effective workforce development strategies, which require the active engagement of planners.

"...the COVID-19 pandemic created new conditions that have hindered an already difficult situation."

Rural businesses and communities are confronted with challenges in accessing relevant human capital to support, maintain, and grow their operations. These communities have always been challenged by low population densities, aging workforces, limited access to local training and educational programs, and seasonal economies. ¹² Rural and northern businesses have historically had three sources for labour beyond their local region: residents from neighbouring communities, attracting residents from urban areas, or attracting immigrants or temporary migrants. These three "sources" continue today.

The COVID-19 pandemic added further complexities in finding and retaining workers. Job loss during the pandemic was higher than in urban areas, and job recovery after the pandemic may not have been the same quality of jobs.^{3,4} The work-from-home strategy employed during the pandemic allowed some workers to reconsider their living situation. The migration of urban residents to rural areas often taxed limited housing stock availability, often resulting in increased housing prices.⁵ This phenomenon was most visible in urban adjacent areas of Ontario. Many employers needed to adapt new production or service strategies to meet the new pandemic reality. In some instances, this meant the adoption of new technologies, new markets, or increased labour requirements.⁶

Researchers from the University of Guelph and Selkirk College surveyed business and workforce development organizations to identify the new work force dynamics and to identify innovative workforce development strategies addressing labour shortages in rural and northern Ontario. An online survey was circulated in the fall 2023 to 97 rural and northern Community Futures Development Corporations and Workforce Planning Boards throughout Ontario, garnering a response rate of 30 per cent. Business-supporting organizations and workforce-planning organizations were asked to gauge their insights on the impact of COVID-19, the type of business supports or resources provided by organizations, and any potential innovative rural workforce strategies and policies.

More than half of the economic sectors are experiencing more difficulty since the pandemic to attract and retain workers. Over 50 per cent of respondents indicated businesses in their region are experiencing difficulty in finding new employees. The survey indicates the industries experiencing the most difficulty in recruiting and retaining workers were retail, accommodations and food services, construction, and health care and social assistance. All business and workforce development organizations indicated the level of difficulty being experienced has increased since the pandemic, sometimes by as much as 20 per cent more than before COVID-19. The key challenges in attracting and retaining labour were difficulty in locating housing for employees, difficulty in accessing transportation for workers, and difficulty in attracting workers to rural communities.

"...difficulty in locating housing for employees, difficulty in accessing transportation for workers, and difficulty in attracting workers to rural communities."

Although difficulties are experienced in attracting and retaining workers, over 50 per cent of respondents indicated more businesses are opening in their region since the pandemic. This illustrates the vibrancy within rural economies; however, it also points to a concern that the limited pool of employees is getting thinner with more employers emerging.





INNOVATIVE APPROACHES TO WORKFORCE DEVELOPMENT IN RURAL AND NORTHERN ONTARIO

It perhaps comes as no surprise that in a landscape of difficulty in attracting and retaining workers that innovative approaches are being pursued by employers across the province. Survey respondents identified innovative strategies being employed by businesses, local governments, associations, and senior levels of government. Two illustrations of the innovation being employed include:

Titan Trailers, based in Delhi, Ontario, purchased the former Delhi Research Station and converted it to a residential facility for refugees to mitigate local labour shortages and to provide affordable housing. Titan Trailers has provided housing and employment opportunities to 40 Ukrainian refugees.

Dufferin County's Early Childhood Education initiative is a partnership with Georgian College to address the immediate need for skilled educators and the broader aspects of diversity, quality, and accessibility within the sector. Dufferin County is funding 18 new bursaries specifically for local residents who wish to pursue studies in early childhood education to increase the number of qualified early childhood educators in the county.

"...the limited pool of employees is getting thinner with more employers emerging."

Additional stories of innovative work force attraction and retention can be found on the project website: www.ruraldev.ca/lsna.

THE ROLE OF PLANNERS

Planners are uniquely positioned to play an important role in the work force dynamics in rural and northern Ontario. This research illuminates the need for place-based strategies built on local assets and the need for collaborative and multi-stakeholder initiatives to foster innovative work force attraction and retention strategies.

Planners can (i) ensure current planning priorities and actions positively contribute work force attraction and retention strategies, (ii) participate and/or convene multi-stakeholder fora, (iii) ensure up-to-date data is available to support work force development, and (iv) ensure available tools are being used within the community (such as business retention and expansion).

Resolving work force attraction and recruitment is not the sole purview of planners. In partnership with businesses, community-based organizations, and other levels of government, planners can make important contributions. ()

This research is funded by the Ontario Agri-Food Innovation Alliance, a collaboration between the Government of Ontario and the University of Guelph

¹Campbell, A. (2024, March 14). 'Tons of jobs but no people,' says northwestern Ontario workforce planning board. Northern Ontario Business. Available at https://www.northernontariobusiness.com/regional-news/northwestern-ontario/tons-of-jobs-but-no-people-says-northwestern-ontario-workforce-planning-board-8391315

²Crawly, M. (2023, January 30). Noticing a labour shortage? Here's what's really going on in Ontario's job market. CBC News. Available at https://www.cbc.ca/news/canada/toronto/ontario-workers-shortage-1.6727310.

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⁴Hall, H., & Vinodrai, T. (2021). COVID-19 and rural economic development in Canada: Insights on impacts, responses, and recovery. *Journal of Rural and Community Development*, 16(4), 141–158.

⁵Mendelsohn, M. (2022). A post-pandemic policy agenda for rural and smaller Canadian communities. Canada 2020. Available at https://canada2020.ca/wp-content/uploads/2022/11/Canada-2020-Report-Rural-and-Smaller-Communities-December-2022-1.pdf.

⁶ Hall & Vinodrai (2021).











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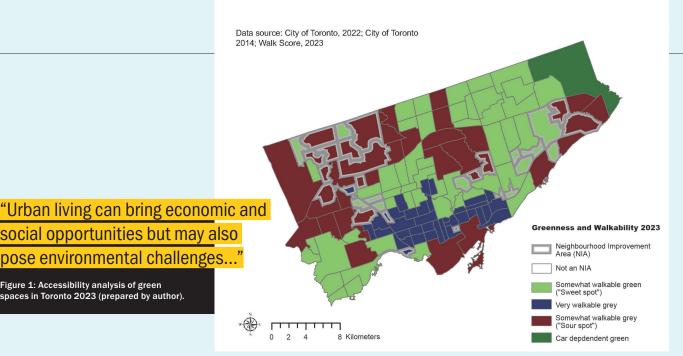
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ACADEMIC

Exploring environmental justice in urban green space distribution and accessibility in Toronto

BY MONA KHAN

Context: While Toronto is endearingly referred to as a "City Within a Park," whether this "Park" benefits all residents equitably, irrespective of their socioeconomic status, invites further exploration.

By 2050, 68 per cent of the world's population will reside in cities.¹ Reflecting this trend in Canada, as of 2021, nearly three in four people live in urban centres.² Urban living can bring economic and social opportunities but may also pose environmental challenges such as increased pollution and hotter climates, exacerbated by climate change.

One of the ways in which cities combat the negative effects of climate change is by planning for the natural environment. Parks, street trees, and other forms of urban vegetation, collectively called urban green spaces (UGS), play a vital role in mitigating the risks associated with rapid urban development by improving air quality, reducing urban heat, and providing essential social and recreational areas. As cities grow, UGS become increasingly crucial, prompting municipalities to develop various strategies to maintain and enhance these spaces. However, despite these initiatives, significant disparities persist in the distribution and accessibility of UGS, often disadvantaging marginalized communities.³

My major research paper, Spatial Patterns and Environmental (In) Justice: Exploring the Distribution and Accessibility of Urban Green

Space in the City of Toronto, aimed to understand who truly benefits from UGS across the city. The research investigated how green spaces are distributed and their relationship with race and income, revealing patterns of environmental (in)equity. Using geospatial and statistical analyses, the study assessed the density of green spaces across Toronto's census tracts and examined their accessibility at the neighbourhood level. A policy scan of municipal planning documents was also conducted to understand current UGS planning strategies in the city and was used to develop actionable recommendations for improving access to these essential spaces in Toronto.

THE CURRENT REALITY

Toronto's population growth has led to an increasing demand for UGS. According to Toronto's Parkland Strategy (2019), UGS currently covers only 13 per cent of the city's land base, translating to 28 square metres of green space per capita. This is significantly below the World Health Organization's recommendation of 50 square metres. The Parkland Strategy Refresh (2022) projects that the average parkland provision per person will decline to 25 square metres by 2034. 5

My research revealed significant variation in UGS density across Toronto, with higher densities found in areas with a greater proportion of visible minorities. These findings challenge existing narratives in environmental justice literature, which often correlate UGS distribution with predominantly white, affluent areas. This



suggests a more complex relationship with UGS distribution in Toronto, urging urban planners to adopt more nuanced strategies for maintaining and expanding these spaces.

ONGOING CHALLENGES

Despite a positive correlation between areas with a higher percentage of visible minorities and UGS density, this does not imply equitable access. Limited walkability, infrastructure barriers, and socioeconomic factors can impede access to these spaces, exacerbating disparities.

The accessibility analysis in my study, using multivariate clustering of Walk Score and green space data, was conducted using Toronto's original 140-neighbourhood structure to evaluate whether greenness and walkability indicators have improved since the Toronto Strong Neighbourhood Strategy (TSNS) was published in 2014.7 The analysis revealed that greenness and walkability were not often correlated across Toronto. This is illustrated in Figure 1's uneven distribution of "sweet spots," which are somewhat walkable and green, compared to "sour spots," which are somewhat walkable but lack greenness.8

"Despite a positive correlation between areas with a higher percentage of visible minorities and UGS density, this does not imply equitable access."

These findings prompt broader questions about who truly benefits from UGS in Toronto. While having UGS is important, their effectiveness is compromised in areas that are car-dependent or lack active transportation infrastructure. This paradox highlights how the intended benefits of UGS – promoting urban sustainability and enhancing resident well-being – are undercut by accessibility challenges. Consequently, the most accessible and walkable areas in Toronto, which should facilitate social interaction and healthier lifestyles through active transit, exclude significant groups. This exclusion prompts critical questions about whether all communities can conveniently reach and benefit from green spaces, affecting overall health and well-being.

Current policies, such as the Parkland Strategy, were found to lack measurable targets for equitable green space access. The TSNS has not been updated since it was published in 2014, making it unclear whether its policy targets have been met. Sixteen of the original 31 Neighbourhood Improvement Areas from the TSNS were found to be "sour spots," highlighting issues with the implementation of strategies aimed at neighbourhood improvement.

OPPORTUNITIES FOR PLANNERS

Urban planners have a unique opportunity to rethink the integration of green spaces into cities and inspire the development of future communities. This study recommends adopting a series of targeted policy measures.

 Integrated policies: Develop innovative, holistic strategies that address both UGS distribution and accessibility.

- Improved monitoring: Establish advanced systems to track UGS distribution and prioritize equity in planning, leveraging qualitative data from participatory planning strategies.
- Enhanced accessibility: Invest in infrastructure and urban planning to improve access to green spaces, ensuring that all communities can benefit from their social and environmental advantages.

LOOKING TO THE FUTURE

As cities continue to grow, innovative urban planning practices must prioritize environmental equity to ensure that all residents have access to green spaces, regardless of socioeconomic status. The findings of this research highlight the importance of developing comprehensive and forward-thinking urban planning approaches to create a more inclusive and environmentally just city. Addressing UGS distribution through an equity lens will enable planners to create a city where everyone can access the natural environment, fostering a healthier and more resilient urban landscape. (\(\vee{Y}\))

¹Un Habitat. World Cities Report (2022) Envisaging the Future of Cities. https://unhabitat.org/wcr/#:~:text=Urban%20areas%20are%20already%20 home.for%20future%20infectious%20disease%20outbreaks.%22

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⁷City of Toronto. (2014). Toronto Strong Neighbourhoods Strategy 2020. https://www.toronto.ca/wp-content/uploads/2017/11/9907-TSNS2020_ActionPlan-Accessible.pdf

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Manahel Khan (Mona) is a Student Member of OPPI and a 2024 graduate of the Master of Planning program at Toronto Metropolitan University. She previously worked for the Forest Planning Policy section of the Ontario Ministry of Natural Resources and Forestry.





ACADEMIC

Artificial intelligence in urban planning: The role and influence of bots in U.S. real estate development and the public participation process

BY CALEY SAVAGE AND MAXWELL HARTT, RPP

Public participation has long been a cornerstone of the planning process. It offers individuals the right to be involved and influence the decision-making process. When integrated effectively, it can have transformative effects on urban planning, fostering empowerment and autonomy within local communities.

Yet, until recently, most of this engagement occurred in-person, with digital integration absent, underdeveloped, or incorporated as a supplementary option. But things change. Enter the digital



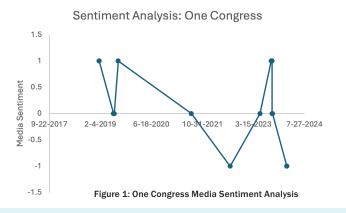
revolution, accelerated by the onset of COVID-19, which ready or not, catapulted planners into a new era of virtual engagement.

"While traditionally used for marketing, media sentiment analysis establishes the perception toward a product, group, or development..."

The exponential surge in social media's popularity has both amplified public interest in land development topics and opened the door to potential subversion by groups with diverse interests. This prompted a collaborative research project with urban planning scholars and graduate students from Queen's University, Tufts University (Boston, USA), and Cardiff University (Wales). Our task was clear: understand the potential risks of AI and automated social media accounts in the participatory planning process and classify the prevalence of this phenomena in the United States.

Initial phases of the project determined that twitter bots had been involved in many of the online debates surrounding U.S. development projects. This gave rise to a new line of inquiry: even if bots were engaged in the public discourse, did the bots wield any tangible influence over the public's perception of the projects?

The latest phase of our investigation seeks to answer that question. We leverage a sentiment analysis to determine the relationship between bot engagement in online discourse and the tone of media articles. While traditionally used for marketing, media sentiment analysis establishes the perception toward a product, group, or development through the process of collecting and analyzing information on social media. As public engagement shifts to more virtual engagement, establishing the relationship between these variables is vital in determining bot influence over the public participation process in urban planning.



We set out to categorize the types of projects susceptible to bot influence and determine if specific geographic communities, building types, or project sizes were more vulnerable to artificial intelligence. We focused on eight development projects previously identified with varying levels of social media bot activity, analyzing the most recent news articles and classifying sentiment as positive, neutral, or negative. Cross-referencing our findings with the previous studies,

we grouped developments based on their sub-category as having bot-generated content.

Our study revealed both intriguing and surprising insights. Neither the type nor the size of development appeared to correlate with bot engagement. Even more surprising was the absence of a direct link between confirmed bot involvement and media sentiment, challenging our belief that these projects would see more negative media coverage. Further analysis revealed the dynamic nature of public sentiment, mirroring the fluctuating tones observed in bot-generated tweets. For example, we examined the sentiment surrounding the One Congress development in Boston, MA. Figure 1 shows that the sentiment evolved over time, subject to development milestones and interviews with key stakeholders. This trend mimics the observations from the original X (formerly known as Twitter) analysis, where tweets from bots varied between pro-development, neutral, and against the development.

Concluding our investigation with a status review of the projects, we found no significant correlation between bot involvement and development progress. Seven out of eight projects progressed from planning to construction or completion, irrespective of bot activity.

"...twitter bots had been involved in many of the online debates surrounding U.S. development projects."

Looking ahead, our research contains two additional stages. Stage 2 will cast a wider net across U.S. projects, scanning social media platforms to identify new projects with bot engagement. This work is supplemented by a national survey aimed at deepening our understanding of how planners and consultants are navigating the digital era and AI. Finally, Stage 3 will delve into case studies and interviews, shedding light on the evolving role of generative AI in community outreach.

For now, the public participation process continues, shielded from the influence of AI. Nevertheless, we persist in our research, recognizing that digital communication will play an increasingly prominent and significant role in public participation.

But as we delve deeper into the complexities of urban planning's digital frontier, one question remains: how long can we keep AI at bay before it shapes the very landscape it seeks to navigate alongside us? Have we already lost control? (**)





Caley Savage, BA, is a Student Member of OPPI who is pursuing a master's in planning at Queen's University studying the impact of artificial intelligence on the participatory planning process and subsequent research into studentification and the financialization of housing.

Maxwell Hartt, PHD, MCIP, RPP, is a Member of OPPI, an Associate Professor in the Department of Geography and Planning, and the Director of the Population and Place Research Lab at Queen's University.

ACADEMIC

Planning student projects

Students at Ontario's six accredited planning schools are the future of the profession and the Registered Professional Planners of tomorrow. Here is a look at some of the exciting and progressive projects from future RPPs.



SCHOOL OF URBAN AND REGIONAL PLANNING, TORONTO METROPOLITAN UNIVERSITY

PUDOlinx: The role of pick-up and drop-off in accessing rapid transit

This studio group worked closely with staff from Metrolinx's Stations planning team to conduct an analysis of various pick-up and drop-off (PUDO) locations in the Greater Golden Horseshoe (GGH). The project was broken down into two phases. Phase one saw them assess the current landscape of PUDO facilities at various GO transit locations and non-transit locations, such as airports, malls, and schools. Phase two involved the development of recommendations based on the previous phase's assessment for the overall enhancement and improvement of the PUDO facilities at existing and future transit stations in the GGH. Through consultation with various government documents from transit agencies, reviewing various transit and non-transit-related case studies, as well as conducting site visits at different transit stations, the team was able to produce sound recommendations for Metrolinx.

Supervisor: Prof. Matthias Sweet

Students: Genevieve Albuerne, John Alimena, Daniel (Ayo) Ayomikun Awonaya, Julia Boni, Neal Cameron, Mathew Cicero, Jared Coloma, Ethan Cecconi, Husna Kaka, Matthew Moschitti, Sufia Nadiri, Alexi-Divas Skinner, Nicole Ifeoma Ufoeobune

SCHOOL OF URBAN AND REGIONAL PLANNING, TORONTO METROPOLITAN UNIVERSITY

Bylaws for biodiversity

Working with the David Suzuki Foundation, this project advances municipal bylaws for biodiversity to improve support for urban native species and habitats in private yards and gardens across Canada. Through a policy scan, bylaw-enforcement case summaries, and analyses of survey data and municipal property standards bylaws, the project provides strategies for improvements to Canadian municipalities' bylaws and enforcement procedures, together with a toolkit, that instead of placing the burden of proof on the gardener, looks at opportunities for collaborative engagement, including how to "de-complain" and improve enforcement procedures. Together, the report and toolkit materials support effective bylaws in service of urban biodiversity.

Supervisor: Prof. Nina-Marie Lister

Students: Sidra Asif, Catherine Caetano-Macdonell, Christina Chiefari, Rachel Nash, Friani O'Toole, Lorraine Johnson, Brendan Samuels, Colleen Cirillo







SCHOOL OF ENVIRONMENTAL DESIGN AND RURAL DEVELOPMENT, UNIVERSITY OF GUELPH

Braiding food systems: Co-constructing Indigenous seed systems in Northern Ontario for food sovereignty, security, and climate adaptation

Responding to the calls of Northern First Nations leaders for improved support in food growing to address food insecurity in their communities, Braiding Food Systems aims to re-localize seed systems in three Northern Ontario First Nations (Netmizaaggamig Nishnaabeg, Biinjitiwaabik Zaaging, Red Rock Indian Band) for

food security and sovereignty. Working with these communities, this project facilitates selection, growing, saving, and ownership of Indigenous and heritage (heirloom) seeds within and by communities to enhance local capacity for food growing and initiate a seed system network in Northern Ontario.

Advisor: Ryan Gibson, Associate Professor and Libro Professor of Regional Economic Development

Students pictured: Silvia Sarapura-Escobar, Paul Benalcazar, Charlotte Potter, Justina Walker, Firoze Alam, Danial Salari, Dakota Cherry









SCHOOL OF PLANNING, FACULTY OF ENVIRONMENT, UNIVERSITY OF WATERLOO

$\label{lem:constraint} \mbox{A policy studio focused on transit-oriented transitional} \mbox{ development}$

The urbanization of the suburbs has long been a goal of urban planning and design, but even with the catalyst of LRT service, redevelopment will not happen overnight. How can planning policy, regulation, and design guidelines direct transition along the LRT corridor in a context of suburban dispersion? In PLAN 720, first-year graduate planning students tackled this question by learning from case studies of mid-sized cities around the world and studying the local context, resulting in policy recommendations for two of Kitchener's suburban Major Transit Station Areas.

Advisor: Katherine Perrott, PhD, RPP, MCIP

Client: City of Kitchener

Students: PLAN 720 Winter 2024 class + Brian Doucet, Adam Clark, Snehal Oswal, James Asafo-Agyei, Mehdi Diouri, Bhrugisha Patel, Snehal Oswal, Shanpreet Shergill, Adam Kelly, Adam Clark





DEPARTMENT OF GEOGRAPHY AND PLANNING, MASTER OF SCIENCE IN PLANNING PROGRAM, UNIVERSITY OF TORONTO

What's Old is Innovative: Investigating efficient and effective delivery of housing in Ontario

Ontarians are facing a housing crisis that is putting homeownership out of reach for many households. This shortage comes at a time of automation, a shortage of specialized workers, and an increasingly dangerous climate, each of which puts pressure on the residential construction industry. Two time-tested practices to industrialize the production of housing are making headlines: modular housing and prefabricated housing. While some old techniques are simply reappearing, other techniques are being newly developed to leverage the possibilities of materials such as mass timber, a renewable alternative to concrete, and the potential of digital public service delivery. This report brings together a literature review of costsaving technologies in construction and the housing landscape in Ontario with insights from interviews with private and public builders and regulators from across Ontario.

Instructors: Michelle Berquist, Kanishka Goonewardena **Students:** Genevieve Drouin, Dasha Gueletina, Dana McAuley, Vivian Patel, Emma Verbisky



DEPARTMENT OF GEOGRAPHY AND PLANNING, MASTER OF SCIENCE IN PLANNING PROGRAM, UNIVERSITY OF TORONTO

Lines in the Land: Storytelling and human experiences of the Ontario Greenbelt

How can storytelling and theatre highlight the multiple narratives of the Ontario Greenbelt? Based in extensive research and interviews, Lines in the Land is a play that weaves through conversations, debates, and imagined futures. The play addresses the Greenbelt's essential functions, the importance of Indigenous rights and stewardship, and ways to better support the Greenbelt. Written at the Banff Centre for Arts & Creativity, this first draft won a prize from the School of Cities for knowledge mobilization.

Supervisor: Karen Chapple, Ph.D. **Outside Advisor:** Merlin Simard

Student: Ameer Idreis



DEPARTMENT OF GEOGRAPHY AND PLANNING, MASTER OF SCIENCE IN PLANNING PROGRAM, UNIVERSITY OF TORONTO

Malvern Memories: From heritage preservation to antidisplacement in Toronto's racialized inner suburbs

This project positions Malvern Mall as cultural heritage and argues that heritage practitioners' inability/unwillingness to act in the face of its displacement surfaces biases embedded in existing practice and policy. Malvern Memories rejects the practice of simply commemorating stories of marginalized communities and post-displacement, and instead, asks heritage practitioners to be active agents in anti-displacement work. This project culminated in a celebration for the mall organized by Faizaan, Debbie Naipaul, and various groups across Scarborough.

Advisor: Deborah Cowen (Supervisor), Zahra Ebrahim (Second

Reader), Howard Tam (Outside Reader)

Student: Faizaan Khan





FACULTY OF ENVIRONMENTAL AND URBAN CHANGE, MES PLANNING PROGRAM & MYPAC, YORK UNIVERSITY

Peer Learning & Alumni Networking (PLAN) Connector Program

The 4th annual Peer Learning & Alumni Networking (PLAN) Connector Program was a great success! MES Planning students were paired with YorkU's professional planning alumni. Students discussed their career-related interests with mentors, who shared their wisdom, career journeys, and on-the-job experience. Virtual meetings were held from April to June (mentors from across Ontario but also Oregon and New Zealand!) capped off with an in-person celebration. The program is hosted by the MES@York Planning Alumni Committee (MYPAC).

Advisor: Laura E. Taylor, PhD, MCIP, RPP, MLAI Students: Ever Palma, Megan Tay, Joanna Silva, Ahmed Saeed, Abdulrahim Mohamed, Greg Bascome, Destiny Laldeo, William Anthony, Rudia Nam, Rishav Panda, Arlene Samuel, Charlotte Minnes, Chhavi Narula.



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PROFILE



Melissa Halford, MCIP, RPP, has been working in the planning industry for 20 years and says she honestly doesn't know where the time has gone. She graduated with a geography degree in 2004 and started working for the District of Muskoka as a water quality technician. Then, after a brief contract with the Ministry of Natural Resources, she landed a full-time position with the District of Muskoka as a planning technician. From there, she moved up through the ranks from technician to planner to manager of planning. Three years ago, she took the opportunity to fill a lateral position with the Town of Gravenhurst and has been their Director of Development Services ever since.

Registered Professional Planner **PROFILE**

NAME:

Melissa Halford, MCIP RPP

LOCATION:

Town of Gravenhurst

POSITION:

Director of Development Services "I feel blessed to get to work with the best team in the business — although I may be biased — and every day at Town Hall is a new challenge that we get to take on together," says Halford. "Life has a funny way of leading you places that you may never have seen yourself ending up, but I am confident that I am in the right place at the right time."

What led to your decision to choose planning as a career?

I chose planning as a career as it provided a meaningful way to be part of leading the change I wanted to see in the world and likewise, in my local community. Like many of my contemporaries, I was a Year 2000 high school graduate, filled with a healthy mix of existential dread about the state of the world and an unabashed optimism that I could make a difference. I saw – and still do see – planning as providing a unique lens through which to view the world and a framework for how to take action.

"...planning as providing a unique lens through which to view the world and a framework for how to take action."

I am a small-town gal at heart and want to see Gravenhurst, the incredible small town that I now call home, flourish. I am passionate about environmental and land use planning and feel confident that development and natural ecosystems can coexist if done properly and with enough intention. I am dedicated to doing my part





towards addressing the housing crisis, as there are too many in our town that deserve a safe and affordable place to lay their heads every night that don't currently have one.

"...development and natural ecosystems can coexist if done properly and with enough intention."

Tell us about your experience volunteering with OPPI. What do you find most rewarding about it?

I had been looking for ways to get involved in OPPI, but wanted to make sure I was able to balance the demands of my position with the Town of Gravenhurst with meaningfully contributing to the organization. When a position opened up with the newly created Government and Public Relations Committee, I jumped at the chance. Meeting planners from across the province and getting a better understanding of their perspectives on all the legislative changes that we, as a profession, have had to digest over the last several years is extremely interesting and insightful, and I also make sure that a voice from small town Ontario is at the table.

The Connective was such a great event for this as well, as nothing gets you re-invigorated like spending a few days with like-minded folks who are dedicated to their craft and want to help move the profession forward.

As Director of Development Services with the Town of Gravenhurst, what are the top areas of focus for you and your team right now?

Housing is the number one priority for me and my team right now, and we are making progress every day in Gravenhurst. We are currently in the early stages of completing a Housing Needs Assessment for the Town, so we can focus our efforts on those types of housing that are needed most in our local community.

We are also setting the groundwork for future partnership opportunities for more rental housing on Town-owned lands in our urban centre. We welcome the opportunity to work with local developers on getting their projects off the ground and make sure we do everything we can to make the process as streamlined as possible.

"In a small town, where staff are always looking for ways to 'do more with less,' I have found that the best way to tackle large-scale issues is through taking small steps together."

How do you approach climate change and developing the measures and changes that need to be taken?

In a small town, where staff are always looking for ways to "do more with less," I have found that the best way to tackle large-scale issues is through taking small steps together. In that spirit, I am leading a collaboration between all six area municipalities with the District of Muskoka which will result in the development of

corporate greenhouse emission inventories and reduction plans for each municipality. Individually, tackling a project of this magnitude without a dedicated "climate person" on staff seemed unachievable. However, when we work together, we can share the responsibilities (and the cost!) among all of us, as we all have similar facilities, infrastructure, and fleet resources.

We took the same collaborative approach on the development of our corporate climate change adaptation plans a few years ago. We worked together on the overall document, as our climate-related vulnerabilities and threats are very similar; however, the plan has dedicated chapters to each municipality for specific actions they can take locally to adapt to these changes. Each person in the working group brings their own unique skill set and expertise, and I am confident that the end result is better for it.

Once this is complete, our next joint project will be to work together on updating our floodplain policies in each of our official plans and zoning/community planning permit by-laws to ensure that they are as consistent as possible across the watershed. I feel very lucky that I get to work with such a great group of RPPs across Muskoka and have benefitted from their collective experiences and approaches over my career.

Do you have a message for other RPPs and up-and-coming planners?

My message is that they should work in a small/medium-sized municipality at least once in their career, particularly in the early years. These planning departments offer a wide variety of planning experiences, from minor variance applications all the way up to working on a transit plan for the community or participating in the review of the official plan! When you work in a smaller shop, you are exposed to so many more facets of the planning profession than you would in a larger community, where you may be focused on only one or two main functions.

We also have a university co-op position here at the Town of Gravenhurst, where we hope to help student RPPs see all that rural Ontario has to offer and that you can make a profound impact on the community if you give it a chance. (\(\vec{Y}\))





OPPI'S NEWEST RPPS

Each year, OPPI is pleased to welcome new Registered Professional Planners (RPPs) as Full Members. RPPs are the professionals specifically educated, trained, and ethically committed to guiding decision makers, the public, and stakeholders in all sectors to help inform choices and inspire communities.

Our newest RPPs have completed the certification process administered by the Professional Standards Board for the Planning Profession in Canada which allows them to practise in the province of Ontario and use the RPP designation.

For 2024, 97 individuals have passed their examinations and received their RPP designation. Welcome and congratulations to you all! We applaud your achievement, dedication, and commitment.

Learn more, including the names of the newest RPPs, at www. ontarioplanners.ca/Newest-RPPs.

OPPI STUDENT SCHOLARSHIPS FOR 2025

Today's planning students are the RPPs of tomorrow. To encourage and support future planners, OPPI provides student members with scholarship opportunities that award excellence and community contributions. Here are the awards for 2025.

The Ronald M. Keeble Undergraduate Scholarship (up to \$3,500) assists in furthering planning education and recognizing undergraduate student members who are making contributions to their communities.

The Gerald Carrothers Graduate Scholarship (up to \$3,500) assists in furthering planning education and recognizing graduate student members who are making contributions to their communities.

The OPPI Opportunity Scholarship (up to \$5,000) acknowledges the financial barriers to education that disproportionately affect Black, Indigenous, and other racialized people. This scholarship may be awarded to an Indigenous, Black, or other racially marginalized person currently enrolled in an accredited undergraduate or graduate planning program in Ontario.

The application period for scholarships is March 1 until May 1, 2025. Find more information, including application forms and eligibility requirements, at www.ontarioplanners.ca/scholarships.

SCHOLARSHIP RECIPIENTS FOR 2024

OPPI is very pleased to announce the recipients of the 2024 Student Scholarships.



Anika Munir, Paul Lowes President's Scholarship Recipient

"Every day, as we watch the news and read articles, it's troubling to realize that owning a home has become a distant aspiration for young individuals like myself. I believe that policy has the potential to alter the daily lives of individuals and communities significantly. I believe that by implementing effective and innovative policies that change the planning and development process, we can create more housing options. I am honoured to be the recipient of the Paul Lowes President Scholarship."



Caley Savage, Gerald Carrothers Graduate Scholarship Recipient

"I'm deeply grateful for the Gerald Carrothers Graduate Scholarship. Thank you to my planning program for their support, faculty for their mentorship, and peers for their inspiration."



Ethan Birmingham, Ronald M. Keeble Undergraduate Scholarship Recipient

"Thank you to the OPPI for providing this generous opportunity and award. Special shout out my professors who have taught me so much, and my family for helping me get this far with all their support. Let's keep moving towards a sustainable future!"



Emma O'Reilly, Opportunity Scholarship Recipient

"I am proud to be able to represent the Métis Nation of Alberta through receiving this award, and I am looking forward to contributing meaningfully to the future of the planning profession"



OPPI NEWS



TIMURUL HOQUE KAZI, OPPI'S STUDENT DELEGATE 2023-2024

Timurul Hoque Kazi attributes his decision to enter the planning profession to the neighbourhood he lived in during high school: the transit-able, mixed-use community of Mount Pleasant in Brampton.

"Living there started to develop my sense of what good places can be like, the community they can foster, and prompted me to start asking why much of the rest of the city didn't feel the same way."

When he and his friends went to a youth civic fair hosted by the City of Brampton, he had the opportunity to learn about the city's sustainability plans from a planner.

"Once I realized that there were people whose whole jobs were to ensure the long-term livability, sustainability, and social connectivity of our cities, I wanted in," says Kazi. "Then of course, urbanist Youtubers and forums such as Not Just Bikes, City Beautiful, and Strong Towns deepened my understanding of the vast world of urbanism."

Kazi is currently in his third year of planning at the University of Waterloo, pursuing a diploma in Environmental Assessment. He has also served on program- and faculty-level student government for three years in various roles and currently sits as Waterloo's Planning Student Association Co-President.

"Being in my third year, I feel like my peers and I are finally getting to the meat of our education: how to conduct public participation, the practicalities of the Transit Project Assessment Process, urban infrastructure failure and how to prevent and address it, etc.," he says. "Co-operative education, too, has been a blessing in allowing me to travel as far as Ottawa and gain a range of experience in stakeholder management, housing, development review, and soon I can add environmental planning to that list."

In his fourth year, he is looking forward to courses in planning law, climate change adaptation, and environmental assessment, and he is all in all very glad to be a Waterloo planning student.

As OPPI's 2023–2024 Student Delegate, Kazi's role is to advocate for student interests in OPPI's events and processes, drawing on the representatives from each school to contribute to a vision of what planning students across the province need from OPPI to thrive as they enter the profession.

"Frankly, I owe part of where I am to the Planning Student Association Co-Presidents who offered me the role of Professional Outreach — shoutout to Mei and Mattea," says Kazi. "Part of that role was interfacing with CIP and OPPI, where I was able to help organize presentations for our student body delivered by practising RPPs from OPPI's Outreach Committee."

OPPI is a bridge between planning students and the profession, and he sought more opportunities to strengthen those connections. Stepping into the Student Delegate role was his way to continue advocating for student involvement and professional engagement with students.

"Ultimately, this is a role with a lot of latitude and support from OPPI staff, so if you are a planning student who is passionate about empowering our peers and creating connections between schools and with the planning profession, definitely submit a nomination – we would all benefit from your ideas."

Kazi also encourages his peers to attend to OPPI's Adaptation Transformation Conference in Hamilton from September 25 to 27.

"The OPPI Conference holds an absolute wealth of knowledge and connections," he says. "The greatest part in my opinion, and something you can't get elsewhere, is the sheer volume and depth of conversations sparked with fellow students and planning professionals. If I had any advice, it would be to be as bold as you can — approach presenters whose sessions you enjoyed with follow-up questions, sit at a breakfast table with a diverse group of professionals, schedule coffee chats down the line. Those connections will provide you with invaluable insights into the profession and help you chart your own path as an emerging planner."

Kazi believes it is absolutely essential for the growth of the profession to pay it forward and create opportunities for the next generation of students.

"Up-and-coming RPPs have a huge role to play in bridging that gap with current students, providing perspectives and opportunities we can't find elsewhere," he says. "Even at an individual level, the connections, mentorships, and simply good discussions that form from engaging with students through volunteering with OPPI leaves a huge impact, and the students themselves will pay it forward for the generation after them."





Honouring Excellence in Planning

The Ontario Professional Planners Institute (OPPI) honours the outstanding contributions of members across Ontario. The PlanON Awards is an awards program to honour the exceptional achievements of OPPI members who demonstrate professional excellence and a commitment to advancing the planning profession in Ontario.

The PlanON Awards recognize the important role the planning profession plays in shaping the quality, livability, and sustainability of communities for future generations. Several categories have been created. This year, our awards program expands with a focus on projects. We're introducing a new framework, allowing unlimited awards, including an inaugural Project of the Year Award that may be awarded for exceptional projects. Recognitions will be based on awards of excellence (90-100) or merit (80-89). We eagerly anticipate celebrating outstanding achievements and contributions to planning, ushering in a new era of visionary planning.

The PlanON Public Education Award
The PlanON Innovative Research Award
The PlanON Vision Award
The PlanON Emerging Leadership Award
The PlanON RPP Leadership Award
The PlanON Volunteer Service Award

The ceremony for the recipients of the 2024 PlanON Awards is a highlight of the OPPI Adaptation Transformation Conference in Hamilton, September 25 to 27, 2024.

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Find detailed information on categories and eligibility, as well as submission requirements and deadlines for the PlanON Awards, at www.ontarioplanners.ca/PlanON.



OPPI NEWS

DISCIPLINE COMMITTEE PANEL: JANUARY 5, 2024 (DECISION DATED FEBRUARY 7, 2024)1

In the matter of a hearing under the *Ontario Professional Planners Institute* Act, 1994, S.O. 1994, c. Pr44, as amended, and the regulations thereunder; and in the matter of allegations of breaches of the Professional Code of Practice referred to the Discipline Committee of the Ontario Professional Planners Institute regarding the Member.

PROCEDURAL BACKGROUND

In February 2021, the OPPI Complaints Committee received a complaint against the Member alleging that, among other things, he had acted in a conflict of interest contrary to OPPI's Professional Code of Practice (the "Code"). The Complaints Committee directed that the matter be referred to the Discipline Committee pursuant to a Statement of Allegations dated January 31, 2022, which alleged contraventions by the Member of sections 2.1, 2.12, and 3.5 of the Code.

On January 5, 2024, the matter came before a Panel of the Discipline Committee on an uncontested basis, the OPPI and the Member having reached a resolution pursuant to an Agreed Statement of Facts ("ASF") dated November 7, 2023. The Member admitted that by engaging in the conduct outlined in the ASF, he violated sections 2.12 and 3.5 of the Code and was thereby guilty of professional misconduct. The OPPI did not pursue the charge under section 2.1.

THE ADMITTED FACTS

In January 2019, the Member and his land use planning consulting firm were retained by a manufacturing company (the "Company") to assist in obtaining the relevant approvals to facilitate the development of a plant in a municipality (the "City"). The City and the Company had entered into an agreement to work together to locate the plant within City limits. In February 2019, the City indicated that it was planning to pursue annexation of lands from a neighbouring municipality in order to increase its supply of properly zoned lands for the Company's plant. The City retained the Member and his firm to provide support and assistance related to the annexation proposal.

Between February and November 2019, the Member served as Lead Project Manager for the Company's proposed plant while he was also engaged by the City in relation to the annexation proposal. The Member never obtained disclosure and a written consent from the City in respect of his potential conflict of interest by virtue of his ongoing retainer by the Company.

FINDINGS OF PROFESSIONAL MISCONDUCT

The Panel found that the Member breached section 2.12 of the Code in that his simultaneous engagement with the Company and the City gave rise to the potential for a conflict of interest, which the Member had failed to obtain the requisite written consent from the City to waive. The Company had an interest in the outcome of the City's annexation proposal and, given that the Member owed professional duties to both clients, he placed himself in a position where there was a risk that his duties may have been unduly influenced. The Panel observed that section 2.12 sets a "bright line rule" for OPPI members, under which potential conflicts of interest require express written disclosure and consent. The potential conflict was not negated by the fact that City staff had knowledge that the Member was acting for the Company, as a potential conflict of interest cannot be waived by knowledge or acquiescence. Written consent is required. The Panel also found that the Member had breached section 3.5 of the Code by placing himself in a potential conflict of interest and failing to obtain written consent to act, as in turn, this cast doubt on his professional integrity and the integrity of the planning profession.

OUTCOME AND PENALTY

The OPPI and the Member put forward a joint submission on penalty, proposing a reprimand, a suspension, rehabilitative measures, and publication of the Panel's decision. The Panel accepted the terms of the joint submission (as varied on agreement by the parties). The Panel's full Order dated February 7, 2024 (amended March 6, 2024) is reproduced below.

ORDER

THIS MATTER, having come before a Panel of the Discipline Committee on an uncontested basis, was heard in person on January 5, 2024, at the Institute's Office.

ON REVIEWING the documents and materials submitted by counsel for the Institute, including the Undertaking and Acknowledgement of the Member, dated November 6, 2023, the Agreed Statement of Facts, dated November 7, 2023,







the Joint Submission on Penalty, dated November 7, 2023, and the Waiver of Appeal & Review of the Member, dated January 5, 2024, and on hearing the oral evidence of the Member, and on hearing the submissions of counsel for the Institute and counsel for the Member.

THE DISCIPLINE COMMITTEE HEREBY ORDERS THAT:

- 1. The Member is found to have contravened sections 2.12 and 3.5 of the Professional Code of Practice and is guilty of professional misconduct.
- 2. The Member is hereby reprimanded for his professional misconduct.
- 3. The Member shall be suspended from membership in the Institute for a period of one (1) month. The first two (2) weeks of the suspension shall be served beginning on the date of issuance of this Order and shall run uninterrupted for the full two (2) week period. The remaining two (2) week period of the suspension shall be postponed and shall be remitted in full (i.e., not served) if, on or before the three (3) month anniversary of the issuance of this Order, the Member provides evidence, satisfactory to the Registrar, of the successful completion of the specified rehabilitative measures outlined in paragraph 4 of this Order. If the Member fails to successfully complete those specified rehabilitative measures within that timeframe, the Member shall serve the remaining two (2) weeks of the suspension, which shall be served immediately following the three (3) month anniversary of the issuance of this Order. For greater clarity, the specified rehabilitative measures imposed under paragraph 4 of this Order will be binding on the Member regardless of the length of suspension served and the Member may not elect to serve the suspension in place of performing those specified rehabilitative measures. If the Member fails to comply with the specified rehabilitative measures, it will be considered a breach of this Order and may be the subject of a complaint, investigation, and/or discipline proceeding.
- 4. The Member is directed to successfully complete the following specific rehabilitative measures:
- a. Within three (3) months of the issuance of this Order, the Member shall, at his own expense, meet with a mentor who is a senior member of the planning profession in Ontario and who has been pre-approved by the Registrar (the "Mentor"). The meeting with the Mentor may be in person or virtual and shall last a minimum of one (1) hour. In advance of the meeting, the Member shall provide the Mentor with a copy of the Agreed Statement of Facts and this Decision and Order. The meeting with the Mentor shall be in accordance with the following terms:
- i. The subject matter of the meeting shall include a discussion on:
 - the applicable provisions of the Professional Code of Practice and the Standards of Practice relating to conflicts of interest;
 - the acts or omissions for which the Member was found to have committed professional misconduct and the Member's reflections on the factors contributing to that conduct;
 - the potential consequences of the misconduct to the Member's clients, colleagues, the profession, the public, and himself; and
 - · strategies for preventing the misconduct from recurring.
- ii. The Mentor shall provide a letter to the Registrar within two (2) weeks of the meeting to confirm the Member's participation in the meeting, the topics discussed, and the Member's progress over the course of the meeting.
- 5. The Discipline Committee's findings and this Order shall be published, in detail or in summary, but with the name of the Member redacted throughout, online and/or in print, including, but not limited to, in the Institute's annual report, on the Institute's website, and in the Institute's publication Y *Magazine*. The summary shall consist of the preamble to and terms of the Order, verbatim. The Committee hereby directs that the summary be published in an email bulletin, on the Institute's website, and in Y *Magazine*, accompanied by a hyperlink to, or instructions on how to obtain, the complete Written Reasons, including attachments, redacted to remove the name of the Member's firm in Attachment "A", and the entirety of Schedule "A" to Attachment "C.

To obtain a redacted copy of the Panel's written reasons, please contact r.desroches@ontarioplanners.ca at OPPI.

¹Amended March 6, 2024, under s. 21.1 of the Statutory Powers Procedure Act, R.S.O., 1990, c. S.22.





Contributors

Planners are innovative thinkers by nature. Their day-to-day work involves exploring new ideas, examining different perspectives, and finding creative ways to resolve the biggest issues being faced in Ontario. Here are some thoughts on innovation from three contributors to this issue of Y *Magazine*.



Anita Fabac, RPP
ACTING DIRECTOR OF PLANNING AND
CHIEF PLANNER, CITY OF HAMILTON



ROTY Baksh, MCIP, RPP
PARTNER AT
DILLON CONSULTING



Caley Savage, BA, STUDENT MEMBER OF OPPI MA IN PLANNING PROGRAM, QUEEN'S UNIVERSITY

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As municipal planners, we are focused on today and the future. To be better able to visualize future changes to our cities, modernizing our public-facing systems and applying technology in a planner's day-to-day work is something I am interested in. I am hoping to see the use of artificial intelligence to assist the public, for example, to visualize a proposed development in its existing context and future envisioned state, or to explain the complexities of a zoning by-law to create better opportunities for dialogue, engagement, and education.

When professionals work in other countries to support the goals of planning agencies, that is called "institutional strengthening." After my many years of doing that work, it became apparent that Ontario's planning institutions need strengthening, too, and there is so much innovation in this realm waiting to happen. Various aspects to institutional strengthening are exciting and point to a brighter future – enhancing our sophistication, deepening our insight, empowering our professionals, breaking down barriers, adapting rapidly to change, and fostering strong leadership.

I'm particularly drawn to technological innovations that enhance community engagement. I hope to see advancements in inclusive planning methodologies that ensure diverse voices are heard and represented in decision-making processes. While artificial intelligence and digital planning tools are unfamiliar, they offer potential to glean new insights from communities. I'm also interested in leveraging data analytics to understand urban dynamics and anticipate needs. It's the synergy of data and community consultation that will foster healthy, innovative, and resilient communities.

What's your vision for a better Ontario?

Neighbourhoods where everyone belongs. Rural development that protects natural habitats and increases food security. Healthy communities with equitable access to health care, housing, and education. Transportation systems that get people where they are going cleanly, safely, and actively. Cities where the goals of economic development are balanced with the needs of the people who live and work there.

Students aspiring to achieve their visions for the future get their start at Ontario's accredited planning schools. Six universities across Ontario offer accredited programs, where students gain the knowledge and skills they need to become leaders in the planning field.

- Queen's University's School of Urban and Regional Planning
- · York University's Faculty of Environmental & Urban Change
- University of Waterloo's School of Planning
- University of Toronto's Department of Geography and Planning
- Toronto Metropolitan University's School of Urban and Regional Planning
- University of Guelph's Rural Planning Program in the School of Environmental Design and Rural Development

These programs provide students with opportunities to engage in well-focused education across a broad spectrum of planning issues, including urban design, rural studies, community sustainability, transportation, housing, heritage, health care, and more. Students engage in teamwork, active learning, innovative research, and real-world projects led by exceptional professors with years of planning experience.

Ontario's accredited planning programs are also the first step to achieving the Registered Professional Planner (RPP) designation. RPPs are innovative thinkers who use their skills and knowledge to bring diverse opinions to the table to find equitable solutions. They are game changers who work in a variety of fields within the public, private, academic, and not-for-profit sectors to inform choices and inspire communities. RPPs know change is constant and challenges are opportunities to do better.

Be part of the change you want to see in Ontario.



Learn more: ontarioplanners.ca/become-an-rpp













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Informing Choices. Inspiring Communities.











