

The road so far

Dear Friend of City78,

With 2019 behind us, the new year offers the opportunity to reflect on the amazing achievements we have made in recent months. It is with great excitement that we share these achievements at the completion of City78's second year of inspiring human-scale urban development.

Today's cities are faced with new and ever-evolving disruptions that question our understanding of urbanism and the effective management of cities. This is why City78 is committed to creating new tools and approaches that empower decision makers and help to identify urban needs and develop solutions that realize urban competitive advantage and improved quality of life for all.

The mission of City78 is to develop tools and solutions built around communities, engaging their cultures, identities, histories, and economies. We ensure that city data remains a means of mirroring actions and interactions between people and their environment — interactions that shape the core identity of a community, be it large or small.

These interactions reflect the nuances and complexities of the lived experience at a granular level, ensuring human nature and character inform the solutions we develop. This approach ensures that through the application of advanced technologies and artificial intelligence, City78 is able to distill and define urban cultures and history, with an ultimate goal of achieving improved quality of life and progressive organic growth.

In the words of Lewis Mumford, "We are in an age of socially undirected technical advances. An age where the mechanical and electronic inventions are exploding at a rapid pace, and in a direction ever further and further away from their human center, and from any rational autonomous human purpose." This is why the work of City78 is important and critical in today's evolving urban landscape, and why we and our partners seek to focus and refocus technological advances on the human center — a center where outcomes enhance urban economic productivity and increase quality of life for all city residents. The future is undoubtedly urban. We ask you to join us in making cities the centers of human development that stimulate innovation, creativity, and prosperity. Sincerely, The City78 Team

2019 Projects

Activating the NPI

The Neighborhood Performance Index (NPI) visualizes community perceptions regarding a range of topics — from public transportation, to safety, to a sense of what is "local." Expanding upon the ideas of urbanists such as William Whyte, Jane Jacobs, and Kevin Lynch, the NPI analyzes and distills these perceptions and translates the lived experience at the neighborhood level.

The NPI sources data from multiple web-based, user-driven platforms, including, but not limited to, Google Reviews, Tripadvisor, and Airbnb.

West Ashley – first full application of the NPI

In early 2019, West Ashley United, a grassroots placemaking organization located in the vicinity of Charleston, South Carolina, engaged City78 to carry out an assessment of its neighborhood performance. City78 performed an in-depth analysis of the community's central Savannah Highway corridor. West Ashley is one of the six main areas of Charleston, with a population of just over 75,000 people. The Savannah Highway corridor is the main thoroughfare of West Ashley, serving as the major connector

between the neighborhood and downtown Charleston. It also features a heavy concentration of commercial, office, and residential uses and is a central location for public services and open space. For this corridor analysis, City78 applied our robust NPI methodology to capture existing conditions and recommend future interventions. Over 30,000 reviews and perceptions tied to location along the Savannah Corridor were logged and categorized under key topics, such as:

- transportation and accessibility
- safety
- community
- social interaction

As a result of the Savannah
Highway corridor analysis for
West Ashley, City78 identified a
number of performance
interventions. For instance, the
NPI illustrated that the corridor's
strengths lie in its ability to
ensure repeat visits, given



prevailing positive perceptions and a receptive atmosphere to social interaction and high-quality and efficient service. However, weaknesses largely derive from the perceived cost of current offerings. Further, the spatial configuration of the Savannah Highway corridor makes it hard to leverage the close proximity of neighborhood clusters. City78 recommended that networks and connection between these clusters be further explored in order to enhance the overall visitor and resident lived experience in the broader Charleston area.

Other Case Studies

Is Airbnb disrupting the hospitality industry?



The hospitality industry is one of the most stable industry sectors and enjoys consistent consumer demand across seasons and locations. This is partly due to the constant need of people in cities

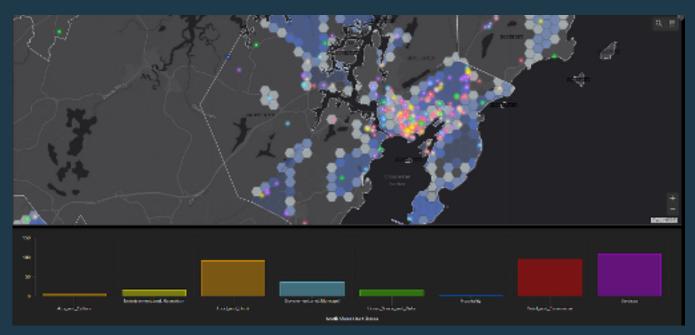
and small towns to seek comfort when away from home on short or long trips, during business meetings, or when on holiday. Hospitality is a billion-dollar industry, as it touches on numerous aspects of life, such as transportation, entertainment, recreation, accommodation, and food services. It is no wonder that the U.S. hotel industry alone generates over \$200 billion in revenue.

When it comes to lodging and accommodation, hotels have traditionally been the go-to hospitality service provider, striving to ensure consumer comfort and an all around positive experience. However, consumer patterns and preferences are changing.

Through City78's analysis of consumer behavior and public perceptions of Airbnbs and hotels in Washington, DC, we analyzed over 340,000 Airbnb and hotel reviews across the city. Our analysis pointed to interesting and varied results in different neighborhoods across the District.

Analysis of North Shore, MA

Using our NPI tool and methodology, City78 emboldens city leaders and stakeholders to harness the power of quantitative public sentiment to inform and direct local initiatives in placemaking and place management. In 2019, we conducted a neighborhood-level analysis of five towns in the North Shore region outside of Boston, Massachusetts, in order to understand what factors may be responsible for sector-based urban performance in each town.



Located about 40 minutes northeast of Boston in Essex County, the North Shore region — comprised of various mid-sized cities and towns — has experienced steady economic growth over the past several years, primarily fueled by the tourist industry. Essex County ranks fifth in the state in domestic travel spending, with domestic travel expenditures, domestic travel-generated tax revenue for local governments, and domestic travel-generated

tax revenue for the Massachusetts state government all steadily increasing since 2013. However, differences persist in both economic performance and tourism numbers throughout the various North Shore towns.

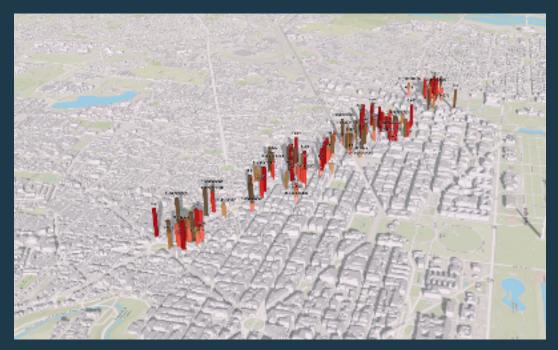
City78 created a comprehensive NPI for five towns in the North Shore region: Salem, Beverly, Rockport, Ipswich, and Gloucester. Through a comparative, neighborhood-level analysis, we were able to monitor and synthesize user perceptions of the five towns' various offerings through community-generated data, which helped us determine the relationship between consumer perceptions of offerings and revenue generation in each town.

Ultimately, this case study illustrates the power of the NPI to deliver solutions for effectively managing urban performance in order to foster increased quality of life and stimulate economic growth in a city and even throughout a region.

Georgetown University Urban Studio Class

During the Fall 2019 semester, City78 engaged directly in the design and instruction of the Urban Planning Laboratory studio course offered through Georgetown University's Master's in Urban and Regional Planning program. The course explored the practices of place-based land use planning and urban design and the tools used to represent, visualize, and analyze the existing and proposed city. The objective of the class was for students to work collaboratively to generate a detailed urban analysis and propose a promising urban design strategy.

By creating a studio environment for students, this course introduced design thinking as a methodology of research and problem solving. Throughout the term, students explored the relationship between the physical form of the city and the underlying social, economic, and ecological factors that it embodies. Using City78's NPI as a means of gathering and documenting consumer-generated data and perceptions, students conducted a thorough urban analysis of the Massachusetts



Avenue corridor in Washington, DC — an area that embodies the rising importance of anchor institutions along a classically-designed urban street and acting as a catalyst for implementing comprehensive urban sustainability outcomes.

At the culmination of the studio course, students presented final analyses of specific geographic segments of the Massachusetts Avenue corridor, focusing on relevant data-driven conclusions and approaches.

Collaborations & Partnerships

ESRI Startups

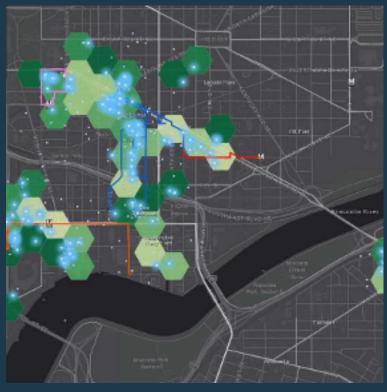
City78 is proud to be an ESRI emerging partner and to be involved in the ESRI Startups program. This collaboration over the last two years has fostered knowledge sharing between our team and our ESRI partners, while ensuring City78 continues to develop and engage with the newest and most leading-edge location intelligence tools, applications, and practices.

Mapscaping Podcast

In July, City78 was featured on an episode of the MapScaping podcast, where we talk about how a data-driven approach augments planning successful and sustainable cities.

MapScaping: Mapping the Way We Relate to the Urban Environment

"Our digital footprints, the posts, and comments we leave online might just be the key to understanding how people relate and interact with the urban environment. Geo-tagged, comments online can be processed using natural language artificial intelligence to sort our digital footprints into a range of recognizable human emotions that are associated with a certain location. This allows us to understand how people use urban space, the ways in which we might want to brand location and how a location might gain a competitive advantage over competing locations."



Roundtable: Surveying in Foreign Languages + Community Data & GIS

Surveys are critical tools in understanding communities. Publicly-posted user and community-generated data, whether it be Airbnb reviews or Instagram posts or other platforms, represents the other side of the coin. When applied responsibly, community-generated data and AI can augment the possibilities of surveying, particularly across multiple languages or at scale.

At this event led by City78, participants familiarized themselves with surveying techniques and best practices, and their intersection with community-generated data and GIS. The conversation explored potential avenues of this intersection and responsible practices when surveying and/or leveraging community-generated data.

Dubai Smart Cities Bootcamp

In 2019, City78 was named one of the top 10 Smart City Startups according to Dubai Smart City Accelerator and Startupbootcamp. dubaismartcity.org

Georgetown University

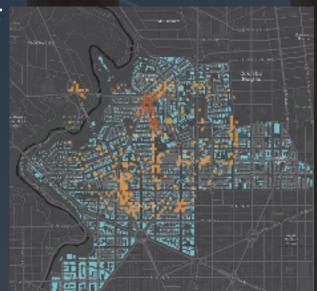
Georgetown University remains an integral partner in City78's mission and goals. While we constantly engage in discussions with faculty across various departments, we are also becoming more involved in mentoring students and providing tools and datasets for conducting complex city analysis. In addition, City78 is actively involved in the Georgetown entrepreneurship program.

What lies ahead

While we are proud of and celebrate our achievements in the past year, we at City78 are also eagerly looking forward to future projects in 2020 and beyond. Some of these projects include:

The pulse of the city - according to the NPI

A platform where users can feed in an address or zip code and immediately view NPI results.



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Case Study: The Making of the Urban Custodian

A study powered by user-generated data that identifies a combination of elements in the built environment that attract residents and visitors to a place.

Collaborations & research: the Heritage Project

A collaboration with international partners (e.g. architects, urban designers, developers) to draft design guidelines for the preservation of existing historical architecture, and for the development of complementing contemporary buildings.





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