Climate Change is Here. Is Your City Ready?

Are you going to be underwater or sweating it out? That depends on where you live, and how proactive your city is in adapting to climate change.

In an effort to shift climate change conversations from abstraction to reality, the team at ILLUME used the Notre Dame Global Adaptation Initiative's (ND-GAIN) Urban Adaptation Assessment to assemble these maps to showcase climate readiness scores across five U.S. cities.





NYC IS ADDRESSING RISK THROUGH:

- Using cooling centers in public buildings to help vulnerable residents
- Making upgrades to utility delivery systems to protect customers from
 extreme weather events
- Setting Climate Resiliency Design Guidelines to make buildings more climate resilient



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MADISON IS ADDRESSING RISK THROUGH:

- Improving storm water management practices
- Providing financing for energy efficiency upgrades to buildings
- Offering a group purchase program for residential rooftop solar panels

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What is the Urban Adaptation Assessment?

ND-GAIN is an interactive database showing vulnerabilities to climate change and adaptive characteristics of 270 cities in the U. S. and Puerto Rico with populations above 100,000. The database expresses all scores on a 100-point scale and defines climate change adaptation in the form of:

- Protection that enhances resistance to the hazard, e.g., embankments to protect roads from flooding
- Accommodation to work with the hazard conditions, e.g., turning a road into a causeway so water can flow under it
- Retreat by avoiding the hazard, e.g., re-locating a road

For each city, the initiative calculates risk scores for flood, heat, cold, sea level rise, and drought, along with scores based on economic, governance, and social readiness. Scores of 40 and above receive a HIGH designation. Scores below 40 are designated as LOW. Want to see the risk and readiness score for a particular city? Check out https://environmentalchange. nd.edu/resources/nd-gain/ to see how your city stacks up.







PORTLAND IS ADDRESSING RISK THROUGH:

- Enhancing protection of watersheds and rivers that provide surface water, expanding groundwater capacity and aquifer storage and recovery
- Investing in road, rail, bridge, bike lane, and sidewalk projects
- Using interactive online effectiveness maps encouraging residents to plant
 more trees and install green roofs





MIAMI IS ADDRESSING RISK THROUGH:

- Increasing tree canopy coverage to 30% by 2020
- Restoring living shorelines by planting and maintaining native vegetation to slow beach erosion
- Designing parks and open spaces to manage flooding and reduce the urban heat island effect

Using Art to Revsonalize pa



This is your customer.

Who are they? What do they expect from you? How will they grow with you or without you as your business evolves? These are questions you cannot answer when they are represented as pixels in a chart. As you look to reinvent your future, you need your customers' voices.

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The fundamental assumptions utilities have built their business models on are changing.

In times of rapid change, thinking of your customer as a pixel in a graphic won't cut it. As you grapple with more challenging questions such as engaging the "hard to reach" or understanding why customers don't participate in your programs, putting empathy first can help you bring your customers, and your future, to life.



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Move than an entry in a spreadsheet

Putting empathy first requires asking the right questions to understand who your customers are. What's it like for them to adopt a completely new product? What factored in to their decision making? How did that impact their energy use? These questions are hard to answer in the data alone. You need to ask, and understand, why.

We recently built a customer journey map for an upstream lighting program.

We spoke with customers and retailers for a year and accompanied them (virtually) on a shopping trip to purchase a light bulb.

Turns out, purchasing light bulbs is really emotional.

To provide our respondents with an adequate level of respect, and our client with a full representation of that emotional journey, we needed a highly visual journey map.

TLLUME'S team hand drew and collaged each key step of The journey.

For example, when a customer was frustrated and frazzled by picking a new light bulb, our team represented shards of color shooting around the background. ILLUME created 36 individualized pieces of art to fully capture the customer's experiences while making our thesis clear and impactful.







Lost in this process. Ultimately, she chooses to be ambivalent about bulbs because it's too hard to make the decisions.

Text highlighting her mood and general outlook *"It doesn't really matter."*



Debra, behind and amongst the shards. She's frustrated.

Shards to represent being frazzled and not having all the pieces.



As part of our journey map work with ILLUME client, Georgia Power, we asked customers to walk us through things like the joy of personalizing and creating a home, the frustration from a shopping experience that should be otherswise 'easy,' and the "Goldilocks" effect of wanting just the right amount of choices.

With light bulbs, we've all been there! Frustrated, overwhelmed, or annoyed by a process. We've seen the eye-popping wall of bulbs at Home Depot and twisted one that's in the wrong color.

Our journey map work for Georgia Power's residential programs helped the large southern utility orient to the true customer experience, and design strategies around marketing, messaging, and programs to best meet customers where they are.

Using art is a way to create robust findings that ignite empathy and harness the care for your customers as people, not just data.





To enact the change, you have to work with the customer and understand what they need.