ALTERED FUTURE

How to Personalize Data:
A Thesis Proposal

Does the smart city system allow aleatory experiences for human interactions?

no. 2020

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KEY TERMS

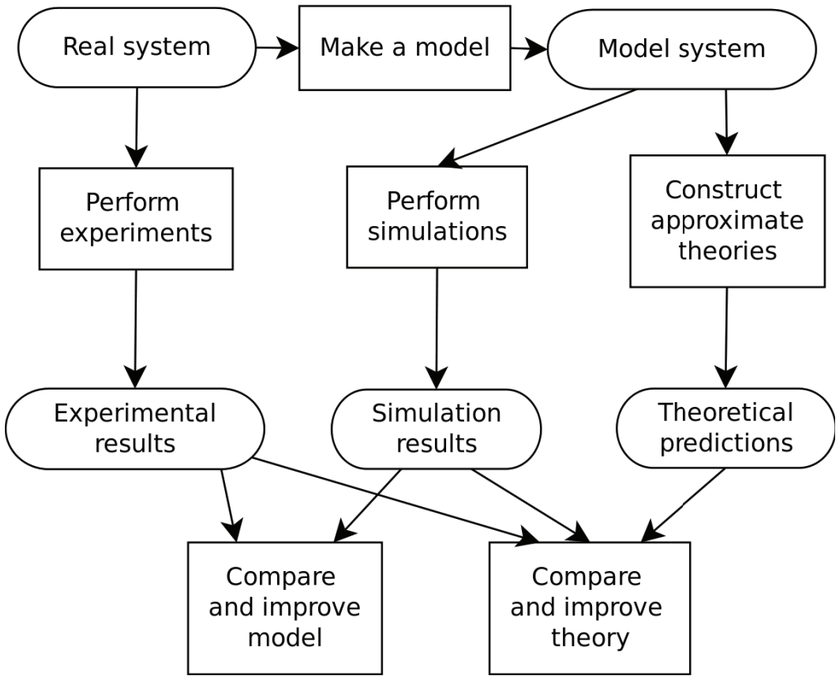
divination
seeking knowledge of the future or the unknown by supernatural means

gamification
a set of activities and processes to solve problems by using or applying the characteristics of game elements

ludology
the study of user behavior and interaction in games and gaming

mixed reality
the merging of real and virtual worlds to produce new environments and visualizations, where physical and digital objects co- exist and interact in real time

simulation modeling
the process of creating and analyzing a digital prototype of a physical model to predict its performance in the real world



project statement

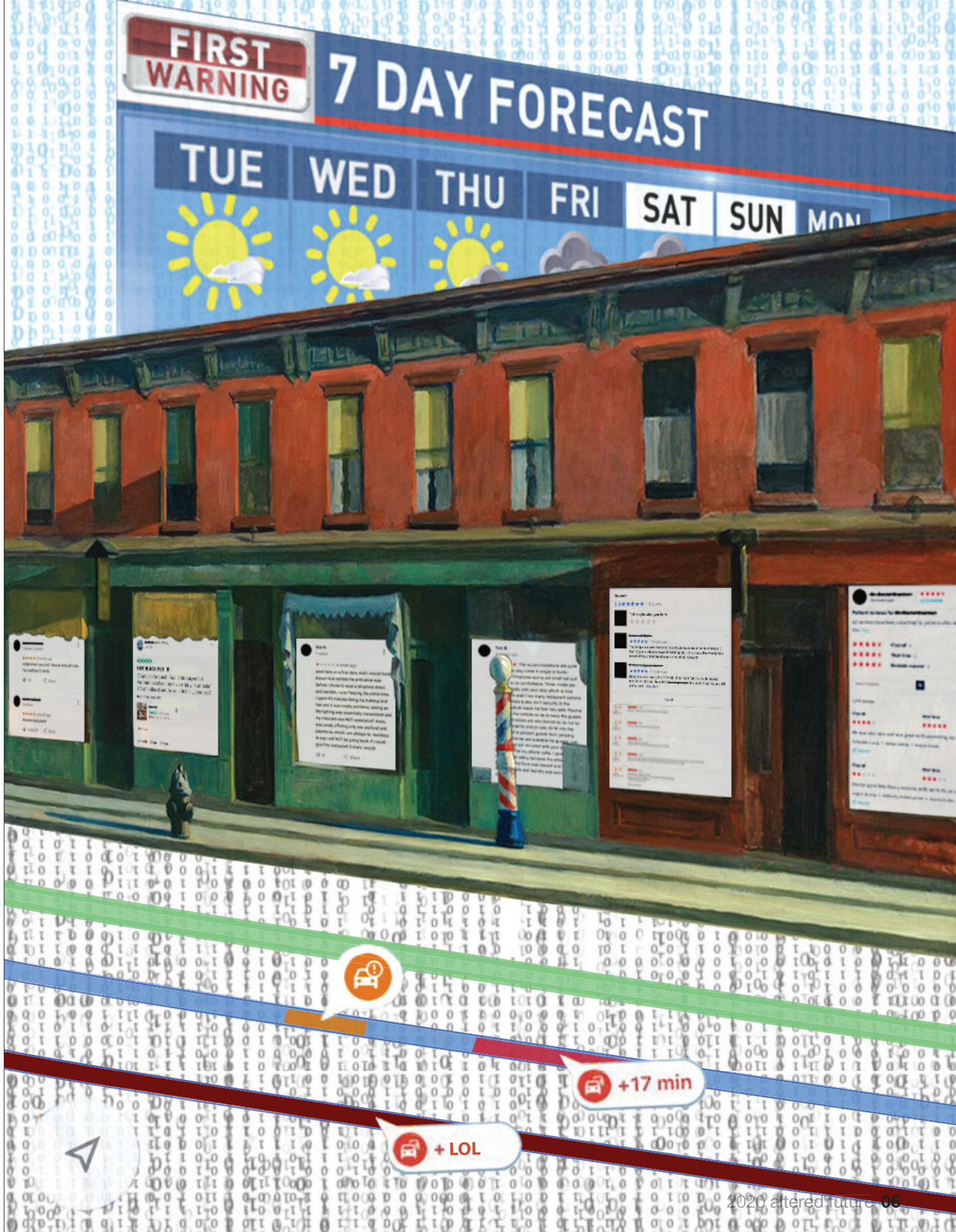
personalizing data

Want to know how long it takes to get to your destination? Check Google Maps. Want to know if a restaurant is worth your while? Check Yelp. Today, big data and data science have changed the way we live, work and play. As collective data has become the gold rush of our generation, it has helped architects, software engineers, and politicians to make decisions by foreseeing the consequences through simulation modeling. Data science and simulation has, in this way, taken over what was once known as "divination."

As a form of divination, simulation modeling and related fields in digital media culture such as ludology and gamification create layers of experience that are invisible to the naked eye. By using interactive mixed reality, ludology creates real time experience where users and designers are able to integrate individual output of personalized data. Players of Sims, for example, create individual worlds that reflect the player's choices. Simulations are laboratories for experimentation where user action is not only allowed but also required. And without the interaction or choices that are made in Sims, nothing happens.

Real-time experience where users and designers are able to integrate individual input of personalized data happens in ludology. Sim-authors "educate" their simulations; they teach them some rules and may have an idea of how they might behave in the future, but they can never be sure of the exact final sequence of events and results. The outcome of these real-time decisions then are able to create unforeseen outcomes as ludology states that there is no set future.

Human data, a word, an entity, a taboo subject. What was once something that was designed for our conveniences is now being used as a way to control our interests, lives and identities. Our data is now more valuable than raw materials. An extra second or two on a single post can now alter the ads and your "interests" through every social media platform we have, to the mail we receive in our mailboxes. As social media companies now control the largest assets in the world, how can we preserve our identities without our decisions being altered or told by unforeseen forces. The ability for individuals to collect and generate personalized data offers users a taste of real- time responsibility and empowerment. If we can't stop our personal data from being farmed, how can we then create open and indeterminate urban spaces that escape the faith of being mapped and remapped during system updates.



cities of today

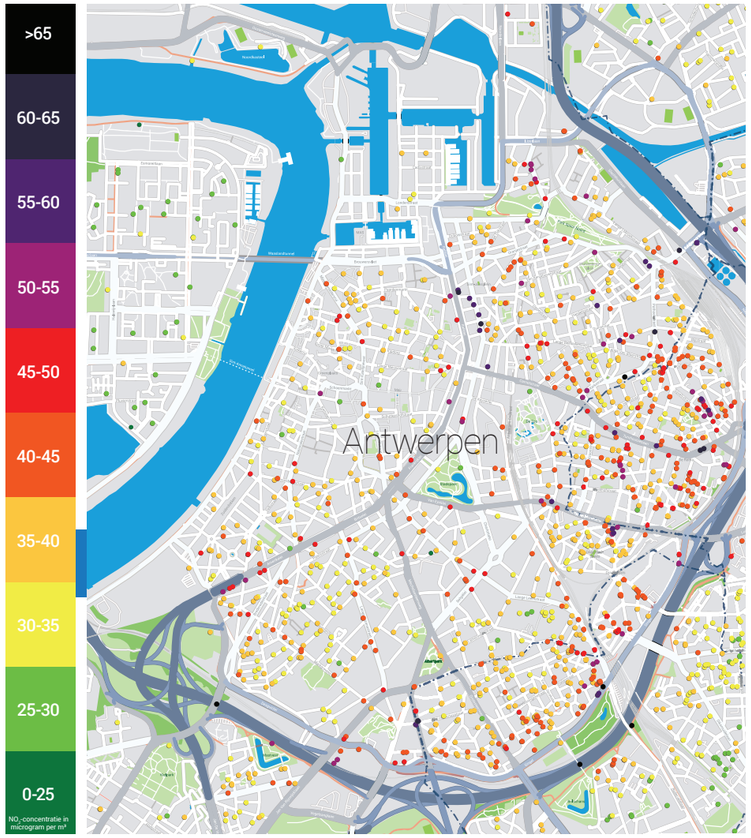
Want to know how long it takes to get to your destination? Check Google Maps. Want to know if a restaurant is worth your while? Check Yelp. Today, big data and data science have changed the way we live, work and play. As collective data has become the gold rush of our generation, it has helped architects, software engineers, and politicians to make decisions by foreseeing the consequences through simulation modeling. Data science and simulation has, in this way, taken over what was once known as “divination.”

In 2014, a group of tech-activists was attending the Smart Citizen Lab in Amsterdam to discuss the collection of data done by the local government. They argued that they wanted to see the data collected in regards to environmental pollution themselves. In *Right to the Smart City: How to Represent, Resist, or Disappear* by B. Coleman wrote:

> The positivistic model of ‘seeing for oneself’ underwrites much of the do-it-yourself (DIY) ontology. It is a mode of engagement that signifies a vernacular epistemology (“find this knowledge ourselves”). It is also an approach that asks for data to be knowable and accountable in a way that often belies complexity in the sense that it reduces all data to a calculus. In this case, complexity can be marked in the ways Amsterdammers know their city– through route, touch, sound, news, gossip, and so on. The possible ways of knowing go on forever, even though knowledge is never comprehensive, never “n=all.”

Unfortunately, the group of tech-activists came to the realization that in order for their data to be relevant, they needed to use the same instruments that were used in the original research. However, across the border, a citizen-centric city lab in Antwerp used strawberries as a data collecting instrument. Strawberries were distributed to five hundred people across the neighborhoods of Antwerp with the citizens planting them outside of their windows. Data was then mined from the leaves of the strawberry plants, rendering an air quality map of Antwerp. The simplicity of this experiment creates mutual trusts between the civic and scientific and offers to the users a taste of real time responsibility and empowerment.

The cities we live in now are dominated by yet another invisible layer, the one percent. During a span of a few decades, more than half of the human population have uprooted from the rural to the urban. Our current cities are now being overwhelmed by the users desire to control shared spaces and individualized convenience. This is the all-too-familiar globalized imagination of the city as a gated full-service amusement park, which further stratified wealthy and poor, user and service class. And in such structural bifurcation, we (meaning all) lose the magic of cities. We move away from the capacious imaginary and toward some abrupt version of “smart.” But how do we create a space that can represent



Air quality map of Antwerp, Belgium by citizen- centric city lab, Ringland, and 2,000 local residents.

multiple identities at the same time? Or, should we recreate a hidden layered city and change the adoption of city space that has been the domain of marooned populations– the dislocated, the dispossessed, the subaltern classes- since the arrival of cities.

The exhibition of “Countryside, The Future” by the think tank of AMO, lead by Rem Koolhaas and Samir Bantal, presents the importance of defining what our future city is and argues that the metropolitan centers we know today are actually not the future of cities. The exhibit calls to attention the importance of the shunned 98% of our earth that are rural rather than urban, and which still represent the great majority of populated lands? the heart of rural and not urban. “Countryside, The Future” touches on the importance of the overwhelming spaces that more than fifty percent of the human population currently reside in and how the current urban, which we have allowed to morph into Big Tech’s ever grimmer recipe for the Smart City. The exhibit envisions the possibilities for our future homes:

> What we wanted to collect is evidence of new thinking—new ways of paying, new ways of cultivating, new ways of building, new ways of remembering, new ways of exploring, new ways of action, old ways of contemplating and being, new ways of using new media, new ways of owning, renting, new ways of protecting, new ways of planting, new ways of farming, new ways of cursing, new ways of harvesting—that are taking place beyond our metropolitan consciousness.

Large crowds gathering around public spaces playing Pokémon Go. (*From left to right: Hong Kong, Düsseldorf, Tainan*)

But to what extent does the mining of our data and using it to create entities for our convenience become control? How do we personalize and create individualized paths for different users, in the same space? And how can it project the future cities of our desire? As a form of divination, simulation modeling and related fields in digital media culture such as, ludology, create layers of experiences that are invisible to the naked eye. But to what extent could these layers of information create spaces of tomorrow? According to Colin Rowe, there is a temporal paradox that gives a space-time traveling quality through organization by a succession of laterally extended spaces, traveling one behind the other. If there are two users existing at the same time, a sequence of spaces becomes divination as the user in room B, for example, is behind in room A. So what happens in room A could potentially foretell you what to expect after room B. Or, if the user in room A decides to create their own alternate of room B.

By using interactive mixed reality, ludology creates a space where users and designers are able to integrate individual experience to create unforeseen outcomes. Players of Sims, for example, create individual worlds that reflect the player's choices. Simulations are laboratories for experimentation where user action is not only allowed but also required. And without the interaction or choices that are made in Sims, nothing happens. Sim authors "educate" their simulations; they teach them some rules and may have an idea of how they might behave in the future, but they can never be sure of the exact final sequence of events and results. This creates hands on experimentation and outcomes catered on an individual scale.

The phenomenology of Pokémon Go have broken the boundaries of the digital and physical world set out as another example of ludology is changing the outcomes of our cities. Participants of the game have now crossed the threshold into the reality of the superimposed. The invisible layers that were hidden are now standing right in front our eyes, making real time decisions and reactions in our physical world. In *Phenomenology, Pokémon Go, and Other Augmented Reality Games*: A Study of a Life Among Digital Objects by Nicola Liberati:

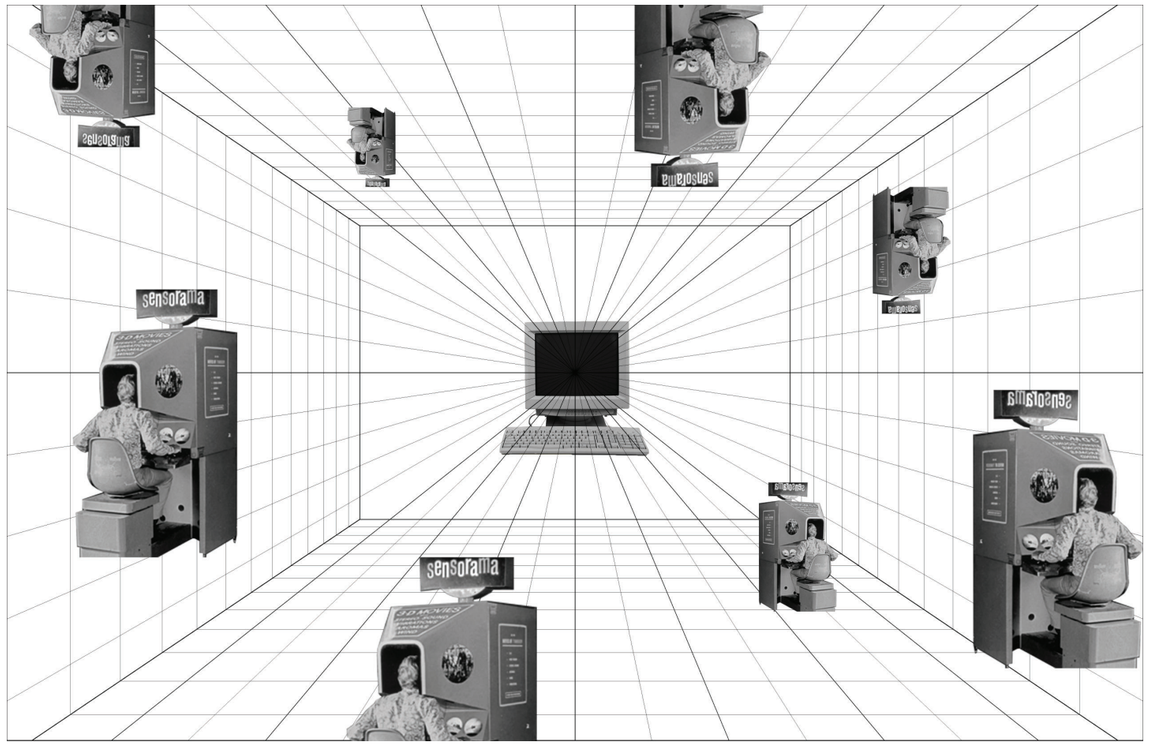
A new way of immersing with our physical environments. (*From left to right: Taiwan's Pokémon Go Grandpa, Time Square*)

"Another possible angle to analyse these fictional objects is to think of them as still within a "screen," even if it is a different kind of "screen." While the classic "screen" of a theatre and in the cinema has to be abandoned because now the fictional entities are able to "live" outside of specific limited places, it is possible to see the device as a tool which turns the entire world into a "screen". By looking through the device the subjects turn their surroundings into a surface where to visualise digital objects. Therefore, instead of erasing the screen, it is possible to think of the world as a new "screen" where to live fictional experiences. "

NICOLA LIBERATI

Phenomenology, Pokémon Go, and Other Augmented Reality Games

SimCity



Another great example of exposing the unforeseen layers of our cities is a project by a team of current architects, designers, software engineers is Atoll. Atoll is an urban design project created by the Strelka Institute as an alternative path to urban design and [a] governance platform driven by deep learning. It uses categorical logic to create urban information models. Merging the dynamic flows of human migration, digital protocols and platforms with the static outlines of buildings, parks and districts. Atoll is a tool to uncover previously unseen constellations of ecology, leisure, work, preservation, refurbishment and social diversity. It acts as an urban operating system that encompasses not only digital infrastructures, but also intellectual, cultural and architectural ones.

Human data, a word, an entity, a taboo subject. What was once something that was designed for our conveniences is now being used as a way to control our interests, lives and identities. Our data is now more valuable than raw materials. An extra second or two on a single post can now alter the ads and your “interests” through every social media platform we have, to the mail we receive in our mailboxes. As social media companies now control the largest assets in the world, how can we preserve our identities without it being altered or told by unforeseen forces. If we can’t stop our personal data from being farmed, how can we then personalize our experiences and seek our own data. We, as the inhabitants of these cities, have arrived at a threshold moment: we cannot live with a next iteration of a techno- deterministic design.

strange architectural object

trading cards

What if I told you that you can create your own future city through the creation of individual trading cards? What if I told you that by layering your own desire, a shadow projection of these layers can give you the insights of your future? And that by changing even just one layer, your future city can be altered?

Before the digital revolution, trading cards from your favorite baseball player to the monsters of Yu-Gi-Oh! were treasured by childrens worldwide. By bringing out the children in all of us, a fun play of predicting our future through the assemblage of layers is my strange object.

kafka “transformation” text

I promise by foreseeing the consequences of your actions, your future reality will be altered.

A road trip requires planning. A road trip requires directions. A road trip requires navigation.

While on the road, the voice from a device tells you there is a congestion ahead and to take an alternative route. But instead of taking the alternative route, you decided to trust your years and years of experience on the road. This time you got lucky. You got lucky that instead of taking 5 hours to get to your destination, you got there within 4 hours and 45 minutes. Wow, what a great amount of time saved you thought. Your companion was annoyed.

Thinking back on the days when your GPS is just printed atlas, free of charge from AAA. Thinking back on the days when your GPS is just printed directions from MapQuest.

This time you urgently have to get to your destination. Thinking about your days before Google Maps, you said to yourself, I know my roads. Your companion is annoyed.

And this time, instead of having alerts of upcoming congestions, you went in blind. Instead of following the warnings, you have now lost 3 additional hours on your vacation. Your companion has left.

Learning from the mistakes, you now follow the alerts Google Maps tells you. In return, you became part of the data, a dot in the system of the Matrix.

How does access to collective data impact our decision making process?

How does access to predictive data impact our present decision making process?

context statement

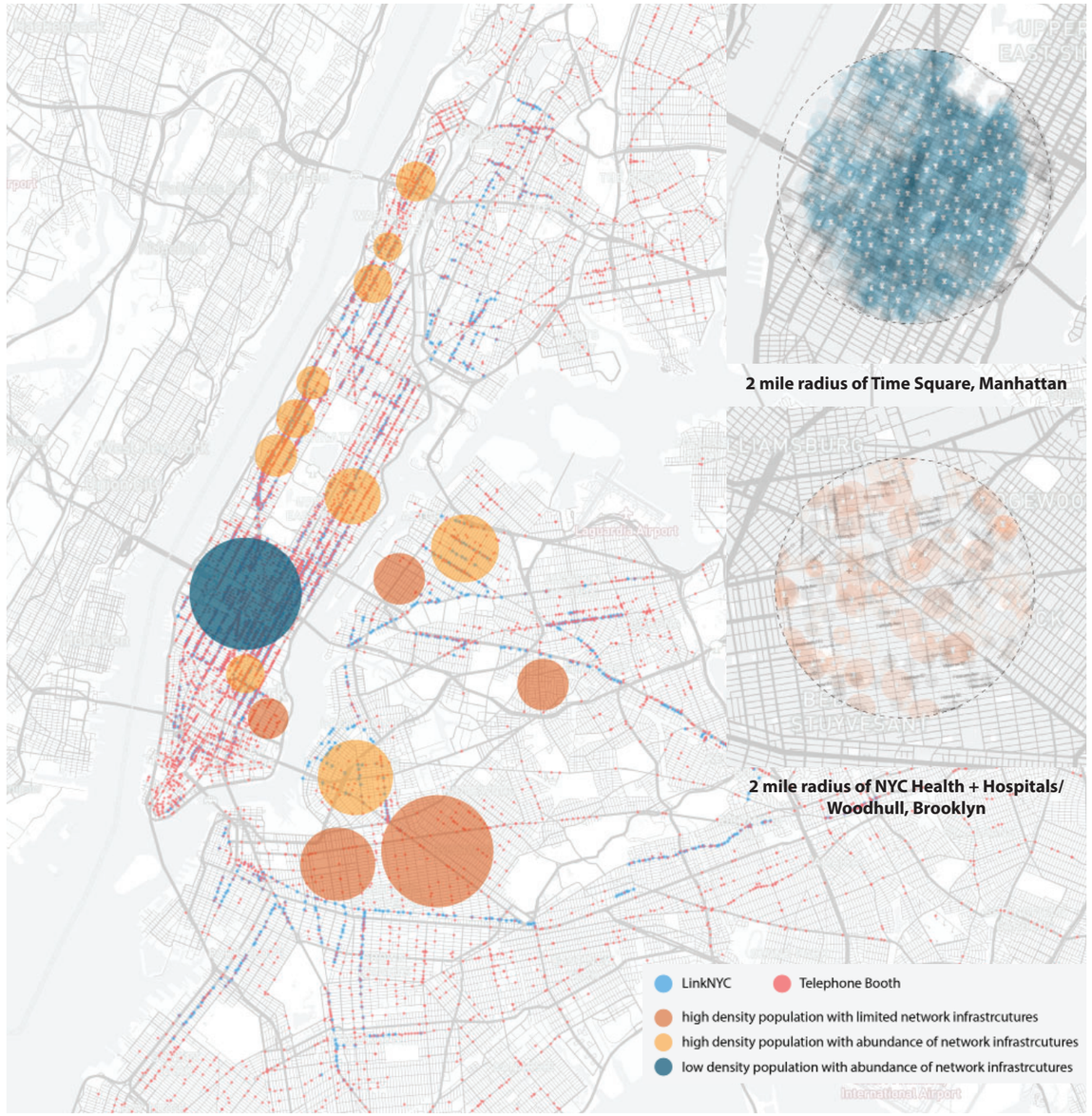
an exposé on the smart cities

How do smart cities work? Smart cities use human data to design cities that are legible for machines to operate. By using technology and data, smart cities curates journeys and experiences that are optimized for the system and for its efficiency rather than for its human inhabitants. The so-called “smart” technologies that come with the price of our individuality have automated our opinions. Today our data is collected by telecommunication poles that are no longer only sources of network, but also checkpoints where our data is harvested. Smart cities focus on efficiency, investment and profit as it structures urban experiences as a series of transactions. And the easiest way to predict and control these aspects are through hard infrastructures, where computers can easily estimate and evaluate the potential costs and profits.

However, these hard infrastructures; from energy efficient buildings to automated transportations, are missing the layers of soft infrastructures: social and cultural capital, human engagement, aleatory experiences. The countless desires of creating and running an efficient city have long been the source of conflict that urban planning seeks to dissolve or reconcile. But the reality is, cities are living organisms composed of humans. Instead of using technology to refine machines, we should instead use technology for a humanistic approach. A humanistic approach that incorporates not only the missing layer of our city, but also the interactions from the inhabitants. An interaction that creates more inclusion, connection and engagement from the communities.

The efficiency of smart cities has altered our physical surroundings through supernatural means. The simulations that are being generated for efficiency have been manipulating the ways humans interact with the physical environments. The seconds, minutes and hours that transport us as we stare at our screens restrict us from understanding our surroundings. Instead of disassociating ourselves with our environment, we should instead use our screens as a tool to interact with our physical surroundings. The “spaces” that have been deemed inefficient by the smart city system may be the “places” that are missing for human engagement. Our physical environment is increasingly encumbered by media, information, and advertising seeking a return on its investments.

We are now surrounded by like-minded people where information that is being fed and discussed are fixed. Even more valuable than raw materials, our data are currently being taken to filter our surroundings. How are we supposed



to project our interests and experience our desires if these are already mediated to us by means of a system that predicts what we want and proscribes our freedom of choice? And how can we break through the boundaries of what the system considers to be our desires and step forward to the underlays of our realities? Mass data collection has inserted itself into our daily lives, with the intent that each and every one of us is inserted into a simulation that none of us had consented to participating in. And if we continue to let our devices control our individuality, we might just end up being non-player characters in the matrix, stuck in a feedback loop with no end.

how to make: the cities of tomorrow

By mapping out cell tower coverages, I hope to make "places'' of a smart city. The idea is to spatialize these networks of interweb connections and understand their relation to urban space. And instead of having cell towers as checkpoints for our devices, these spaces become filters that create places. This spatialization allows me to recast this urban space as a "place" that has been deleted by the efficiency of the smart city. And by introducing gamification, these "places'' can then become individualized through the notion of play.

Gamification creates interactions that have organic and flexible outcomes instead of technocratic controls. This type of approach benefits from the bottom-up processing of information and highly emphasizes on the interaction between spaces and inhabitants. In gamification no space is separate or sacred, there is no exclusion. Individuals are able to create equal possibilities and extend itselves anywhere and everywhere. This method of design allows play interaction between the city and its inhabitants and a hybridity of work and play.

Like any process of design, a set of rules would be implicated into the defined spaces through the exposed zones of cell tower coverage. These exposed zones of cell tower coverage then become "places" that were once invisible to the naked eye. Gamification is not just about "rules of play" but also about "rules of place." These set of rules would then be explored and promote interaction between the physical and virtual worlds. When virtual reality is able to spill into our physical worlds, inclusion supersedes exclusion. Gamespace is not utopia or dystopia, it is atopia.

The migration of gaming spaces spilling out into the physical world creates a variation from two- dimensional representations of three- dimensional spaces, to existing social communities of physical interaction. Rather than a top- down approach where outcomes have already been presented, organic forms of spaces are created through the emphasis of bottom-up process. Ultimately, a gamespace needs interactions from inhabitants to make it a "place." This technical reality makes it possible to develop urban spaces with an enormous degree of freedom without a loss of control. And according to McKenzie Wark in *Gamer Theory*,

> Rather, gamespace seeps into everyday life, moving through its pores, transforming it in its own image, turning up everywhere from cellphone Tetris to your quarterly pension fund statement. Rather than a timeless utopian ideal in which history ends, rather than the allotted hour of the heterotopian, everyday life now pulses constantly with moments of unrealized atopian promise.

acknowledgments

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