

SLIDES:

Slide 1: Title Screen: Resistance GIS

What exactly is resistance GIS? Well, the way that we define it, and for the sake of this conference, Resistance GIS is about using maps and geospatial tools for community empowerment and to support social movements.

Why “*Resistance*” GIS?

Amongst our Resistance GIS team, we debated what to call this conference. We thought about “critical GIS”, “counter GIS”... but none of those seemed right, and so we settled on Resistance GIS. Some people have brought up arguments against the term “resistance”. That it is too reactionary and polarizing, or, on the opposite end, that it has become overused, and as a buzzword, it has become watered down or delegitimized.

We started talking about organizing this conference in late September. Then, when the November 8th happened and our country was suddenly changed, we knew that having this conference was more important than ever, and that we needed to call it resistance GIS.

Slide 2: Greenpeace Resist Banner

The Greenpeace “Resist” banner was our inspiration

We think that the idea of resistance GIS is important, because resistance movements have not necessarily been accepted in the GIS world, even amongst those who study critical GIS, which is concerned with the various impacts of GIS technologies on people.

This conference really is about *acknowledging and **resisting*** the dominant paradigms in GIS and data science.

Slide 3: Greenpeace Resist Banner and white house

[This slide is just for visual context]

Slide 4: The problems

So what are some of the challenges and problems with in GIS today?

Using GIS almost always requires technical expertise and access to specialized software. It is a technocratic discipline in which only those with skills and access are able succeed. In our current paradigm, data is power, and the people who create, manipulate, and visualize (that’s us) hold power.

Despite progress in the last 20 years, our field is still predominantly white, and male. According to the 2016 Current Population Survey from the Census Bureau, for the occupation of Surveyor,

Cartographer, or Photogrammetrist, 90% are white, and 84% are male. GIS Analyst is a little better, with 75% White and 78% Male.

Maps and geospatial technologies have been complicit in supporting the interests of private firms and governmental power, not to mention the military applications of GIS and its use by private companies for geosurveillance. More recently, the topic of data colonization and dispossession by accumulation has emerged, and two of our speakers today, Dillon Mahmoudi and Jim Thatcher have done important work on this topic. It is an emerging concern in the data science world. Hopefully Jim can speak to that a bit more today during his presentation.

Slide 5: Spatial IS special

The organization of people across space is an integral dimension of human societies. Understanding how we move, organize ourselves, and segregate certain populations helps us to better understand human behavior. This map shows migration to and from Multnomah County.

Slide 6 "Spatial Justice":

Space is a dimension of human societies which social justice is fundamentally embedded in. So the understanding of interactions between space and societies-- migrations, segregation, displacement-- is essential to the understanding of social injustices. This reflection can be guided by the concept of spatial justice (Edward Soja), which ties Social Justice with geography.

Spatial justice is an inherent part of maps and map making, and yet it is something rarely talked about in GIS. The technology and analytical skills that we apply when using GIS are often seen as "neutral" or "apolitical" tools, but the opposite is true.

A few scholars of Critical GIS, like Stacy Warren and Mei Po Kwan **have** questioned the role it has played in addressing questions of social justice. On the one hand we know it is used for harmful resource extraction, private surveillance, and military applications, but on the other, we know that GIS techniques can be used to expose systematic patterns of spatial inequity.

Slide 7:

Maps are essential to understanding social injustice. The map on our left was made by the anti-eviction mapping project, and documents the loss of affordable housing in Los Angeles due to the Ellis Act. The map on the right shows the native nations whose territories straddle the 2,000 mile US/Mexican Borders, with the red dots along the border representing official border crossings. Over the course of generations, they've formed connections on both sides of the border, and yet because of these political borders they're considered foreigners and illegal immigrants in their ancestral homelands.

These maps provide powerful visualizations of injustice.

Slide 8: In fact, GIS has been used for the legal defense of marginalized communities in civil rights violation cases such as Kennedy v. City of Zanesville, where millions of dollars were paid to residents in a predominantly black neighborhood who had been denied fresh water from the city.

Slide 9: But maps can also be a tool to perpetrate injustice.

Slide 10: We also know that it is easy to lie or manipulate facts with maps. Americans are taught from an early age to analyze and understand the meaning and manipulation of words, but they are rarely taught the same skills about maps.

Slide 11: The current trend in data science is to democratize, making data “open” and free to the public. In GIS, we are seeing more and more Public Participation GIS projects where everyday people can take part in data creation or analysis. But basic geographic literacy is still not accessible to most people. This makes it challenging to generate good data, and even harder for communities untrained in geospatial techniques to use the data.

Slide 12: There is a need to democratize GIS to make it more accessible and more useable for lay people, but we need to critically examine how we are doing it. No tokenizing, no colonizing. Keeping in mind that we are still a field that is predominantly white and male. This is not about being white saviors.

Slide 13: GIS is not a neutral tool, the way that we use and engage it is *inherently* political. In our day to day jobs (and school), whether we like it or not, everything we do has ethical weight and consequences. Job prospects in GIS industry are mostly limited to private firms or the government. If we are working in these jobs, we are often reinforcing the long standing power dynamics that these institutions represent. So even as thoughtful practitioners, it can be difficult to find jobs that are fulfilling and allow us to support the causes we believe in.

We need to look inward and critique and improve ourselves and our *own community*. This is an essential first step to take before we try to mobilize ourselves to help others, we need to make sure our own house is in order. THE WORK STARTS WITH US.

Slide 14: Alternatives to the dominant paradigm

Critical GIS
Counter cartography
Participatory “bottom up” GIS
Feminist GIS
Citizen science
Critical data studies
Gis ethics

These are some of the things we want you to consider as our speakers present today. How can you better use geospatial technologies to help the world? How can we prevent the exploitation of these technologies in our daily practice? Everyone here is a part of this conversation, and has a potential influence on the direction that GIS will go in the future.

Slide 15: Safe space

Ground Rules for the Day

- Respect and make space for the opinions and thoughts of others.
- Feel free to contribute questions and comments during Q&A's, but remember that we want to give everyone who want to speak time to do so, so don't be a time hog.
- There are no dumb question. We have people here from all levels of GIS, and we are here together to learn from each other.
- We're not all academics or data scientists. Keep jargon to a minimum. Use your normal people words.
- The platinum rule: don't be a jerk

Slide 16:

Sponsor Shout out: Ristretto Roasters, Spielman Bagels, Trader Joes, Columbia Gorge Organics, Fair-en-bach-er Hof Coffee Shop, and especially to the PSU Speakers Board, who helped us with travel expenses to get our out of town speakers here.

Check out the multimedia room!!

Thanks to the Resistance GIS crew for being so amazing and building this thing from the ground up. [\[Resistance GIS group photo? Or just our logo?\]](#)

David Banis, Sarah Dewees, Tim Hitchins, Lauren McKinney, Nate Riggsby, John Rogers, Kristin Sellers, Rebecca Tait, Paige Williams

