tips, tricks, ethics

adam okulicz-kozaryn

adam.okulicz.kozaryn@gmail.com

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outline

tips and tricks

ethics

research design again: important from now on

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have a big screen

- again, i cannot overemphasize, that
- a big screen is key for gis work
- >=$250, probably around $500
  - will get about 20-100% more productive
  - so return on investment in about 50-200hrs (couple weeks)
  - not just size matters but resolution!
  - do >= 2k say QHD 2560x1440
  - possibly 4K, say UHD 3840x2160
- and get a nice mouse too

google for maps; like lit rev!

- depressing, but whatever you are mapping, someone has already done it
- google and see images, say: 'nj counties contamination sites' `https://www.google.com/search?q=nj+counties+contamination+sites&tbm=isch`
- or "Philadelphia healthy stores map" (sometimes need word 'map' otherwise get pics of healthy food)
  - `https://www.google.com/search?q=philadelphia+healthy+stores+map&tbm=isch`
- get ideas, inspiration, make your map better

google for shapefiles

- eg “what you are looking for, shapefile”
- eg “new jersey public schools, shapefile”
- tips:
  - may need to look for a higher level; eg NJ schools instead of Depford Twshp schools
  - if you cant find it, contact govt; eg city of Camden, state of NJ, etc–they’ll be happy you’re using their data
  - again, may find only traditional data and need to join

join data

- the real value comes from joining data!
- again, a map about any single var was already made
  - but 2 or more vars from varied sources: rare
- so many datasets and variables out there!
  - use your creativity and imagination
  - and you'll easily come up with something that no one did

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it's actually important

- not just some second thought sidenote
- how can you look at yourself in the mirror if you lie with maps?!
- well sure, fine , do consulting, make money, don't be broke, be happy
  - but add 'potential/perceived conflict of interest/funding info'
  - and try to do at least some work that is independent
  - and not funded by people/orgs with interest in anything else than truth

integrity/honesty

- be explicit about problems in your data
  - eg non-joins, missing data, miscodings
- be explicit about problems in your models:
  - eg don't hide maps bc they contradict your story
  - discuss it: how, why; ask audience to comment/criticize
- instead of forcing data to tell your story,
  listen carefully; let data tell you her story!

ethics

- everybody wants to sell something
- we academics or thinkers or students, too!
- we try to sell some idea or point of view
- nobody 100% objective
- always try to present alternative/opposite points of view
- present the whole picture
- do force yourself to be objective, because humans aren't
- see eye-opening `https://righteousmind.com/`

ethics: bad examples

- cherry picking of vars or samples or timeframes, etc
- eg using only vars/operationalizations that fit your story
- eg using year in which you find what you wanted to find
- classification: playing with bins to fit your story

outline

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ethics

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quality

- GIGO: Garbage In, Garbage Out
- 'Cos it's in the computer, don't mean it's right
  - double, triple check
  - ask yourself if it makes sense...
  - (Camden richer than Cherry Hill?)
- and who produced the data? Trust Indian govt? Bias in what direction?

construct validity

- are you measuring what you say you are measuring?
- say you want measure ability, or IQ, but you only have data about education
- http://www.socialresearchmethods.net/kb/constval.php
- seven sins map
  http://2.bp.blogspot.com/_R3SXJVojagU/SwLzZJL1E2I/AAAAAAAAAIE/7GbMzcZPDDk/s1600/sevendeadlysins.bmp
  - https://creativeclass.com/whos-your-city/maps/#Personality_Maps
  - https://scholar.google.com/citations?user=TZ9YLMoAAAAJ&hl=en&oi=ao
- and some stuff bias downwards, like crime, Trump vote (shy Trump)

triangulate

- use several datasources and or several variables to measure the same thing (triangulation)
- triangulation=use different measures for the same concept
- eg education:
- years of schooling
- highest degree obtained
- avg SAT score
- avg ranking of schools in the area
- etc etc

external validity

- are your data representative ?
- how big is the sample ?
- eg I was geocoding WVS at province level only to find out it was unrepresentative

its geo, but time matters too

- we are exploring geo
- but there is also time
- useful to show time changes in your maps, eg:
  - $POP10 - POP00$–a difference, which county gained most pop
  - $(POP10 - POP00)/POP00$–% change
- other time issue is that things fluctuate over time, say due to business cycle
  - if you want to show a more reliable estimate take an average
  - say avg. 5-yr unemployment rate

make maps find things; go there see with your eyes

- as you make maps and find things, go there in person and see with your eyes
  - drove through MI from TX to NJ to see lowest lexp
  - went to Pine Bluff AR to see fastest shrinking town
- map a place you grew up, or where you want to live etc