Open Geospatial Data

A comparison of data cultures in local government

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The Landscape of Open Geodata

Next Generation 9-1-1 (emergency response)

National Spatial Data Infrastructure
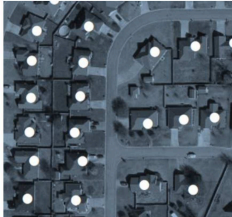
National

States

Statewide parcel fabric
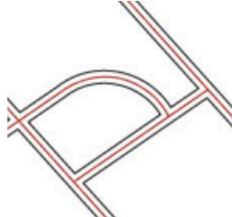

Counties

Parcels

Address points

Road centerlines

Why isn't local Open Geodata available everywhere?

Free & Open

◎ Reduces operating costs

◎ Eliminates redundant effort

◎ Ensures data comes from the authoritative source

◎ Increases transparency

Restricted Access

◎ Potential loss of revenue from the sale of geospatial data

◎ Legal liability

◎ 'Bad Actors' misusing the data

◎ Privacy and security concerns

What is Open Geodata?

**A comparison of open data qualification criteria models**

Required criteria	Our model	OKF Open Definition 2.1	Sui (2014)
Open License or Status	X	X	X
Free	X	[reasonable fee]	X
Downloadable	X	[recommended]	
Open, non-proprietary format		X	X
Features quality metadata			X

How have differences in **legislation**, **funding**, and **workflows** in these two states affected the availability of open geodata? What lessons can we learn from the different approaches?

MINNESOTA

CAPITOL ST PAUL

L'ÉTOILE·DU·NORD
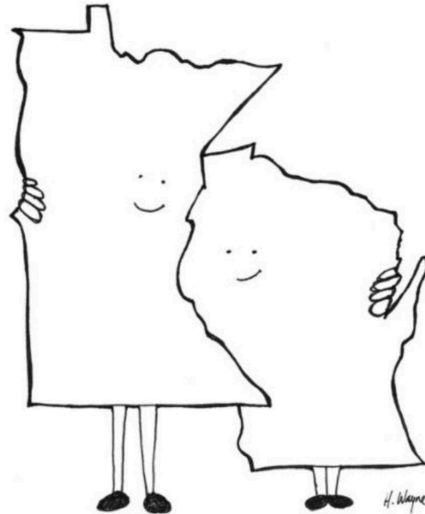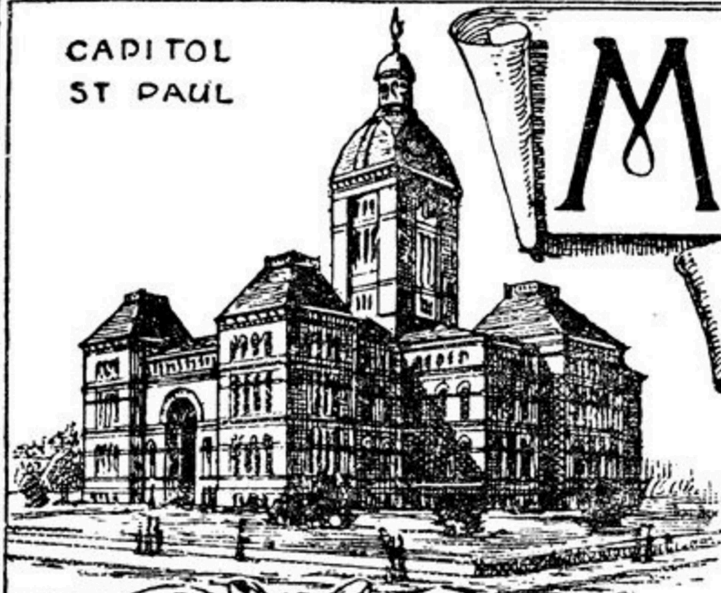
THE·NORTH·STAR·STATE

· Capitol · Coat of Arms · Pet Name ·

Minnesota: Milestones in Open Geodata

◎ 1967: The Minnesota Land Management Information System

◎ 1990s: Multiple open data portals emerge from state agencies

◎ 2015: State and Twin Cities metropolitan portals merge into a single site: the Minnesota Geospatial Commons (https://gisdata.mn.gov).

Minnesota: Open Geodata Today

◎ MN Geospatial Advisory Council champions open data as the #1 priority

◎ Counties manage their own geodata and can choose to contribute to the Commons

John R. Borchert Map Library Projects

Minnesota Historical Aerial Photographs Online
from the John R. Borchert Map Library

B1G ACADEMIC ALLIANCE

Geoportal   About News Help

Explore Maps and Data

Search...   Search   Advance
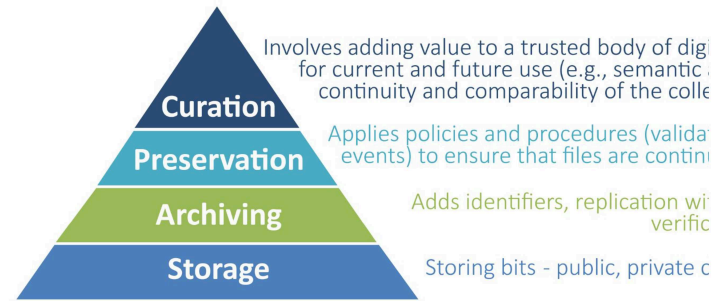
Datasets   Maps   Imagery

Place   Subject

About the BTAA Geoportal

The Big Ten Academic Alliance Geoportal provides discoverability and facilitates access to geospatial resources. The resources in the portal are selected and curated by librarians and geospatial specialists at twelve research institutions in the Big Ten Academic Alliance.

Digital Stewardship Pyramid

Curation — Involves adding value to a trusted body of digi for current and future use (e.g., semantic continuity and comparability of the colle

Preservation — Applies policies and procedures (valida events) to ensure that files are contin

Archiving — Adds identifiers, replication wi verifi

Storage — Storing bits - public, private c

STATE CAPITOL MADISON

WISCONSIN

FORWARD

THE · BADGER · STATE

· Capitol · Coat of Arms · Pet Name ·

Case Study: Wisconsin

◎ The Wisconsin Land Information Program (WLIP, est. 1985) provides a strong incentive for county participation in land records modernization, foundational layer creation, and land information office operations across the state

◎ Beginning in 2005, as a way to facilitate educational access to geospatial data, the Robinson Map Library (UW-Madison) starts collecting and archiving local gov data, launching an online geoportal 'GeoData@Wisconsin' in 2014

Prior to 2014, there was no online comprehensive geoportal for broad access to Wisconsin geospatial data

Case Study: Wisconsin cont.

◎ WI Act 20 (the 2013-15 WI State Biennial Budget) creates statutory directives for state and local governments to coordinate on the development of a statewide digital parcel map

◎ WI Dept. of Administration (DOA) sends an annual "call for data" to all counties for tax parcels (while the RML continued to request a separate set of layers for the archive)

◎ In 2017 DOA expanded its annual request for parcel data from counties to include layers previously collected & archived at the RML

◎ Annual snapshot of 12 geospatial data layers for all 72 counties: Address Points | Buildings | Hydrography | Land Use | Parks | Parcels | PLSS | Recreation | Roads | Right of Ways | Trails | Zoning

SUBMISSION DOCUMENTATION
**Version 7 Statewide Parcel Map Database Project**
January 29, 2021

Contents

STATEID   ZIP4
PARCELID   STATE
TAXPARCELID   SCHOOLDIST
PARCELDATE   SCHOOLDISTNO
TAXROLLYEAR   CNTASSDVALUE
OWNERNME1   LNDVALUE
OWNERNME2   IMPVALUE
PSTLADRESS   MFLVALUE
SITEADRESS   ESTFMKVALUE
ADDNUMPREFIX   GRSPRPTA
ADDNUM   NETPRPTA
ADDNUMSUFFIX   PROPCLASS
PREFIX   AUXCLASS
STREETNAME   ASSDACRES
STREETTYPE   DEEDACRES
SUFFIX   GISACRES
LANDMARKNAME   CONAME
UNITTYPE   LOADDATE
UNITID   PARCELFIPS
PLACENAME   PARCELSRC
ZIPCODE

Data availability outcomes

	Minnesota	Wisconsin
Total number of counties	87	72
Number of counties that self-publish open geodata	39 (45%)	32 (45%)

Counties in Minnesota and Wisconsin that self-publish open geodata

Self-published open geodata
No self-published open geodata
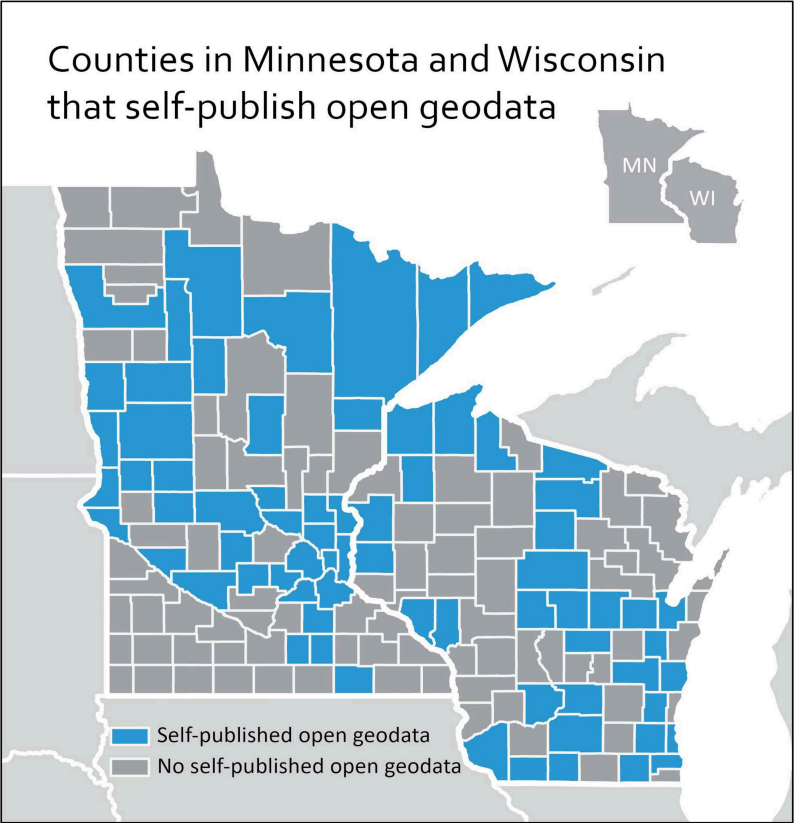
Counties in Minnesota and Wisconsin that published parcel data as open geodata in 2015
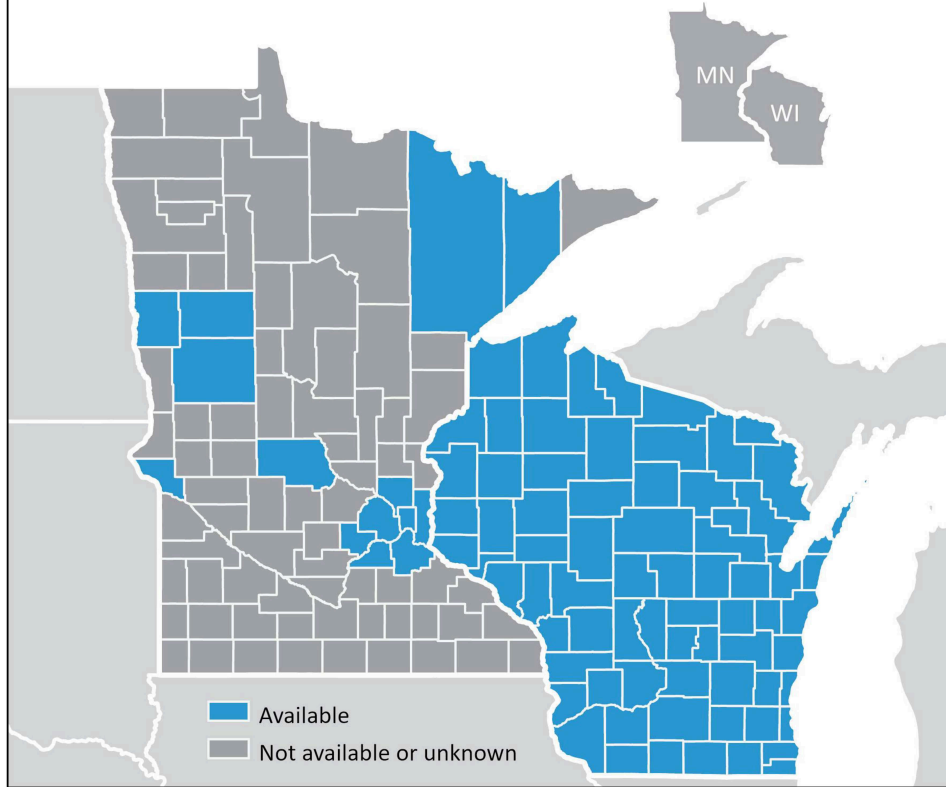
Legislation

Minnesota Government Data Practices Act, 1974 + 1990 amendment granting counties and cities the right to charge a fee for geodata.

The state collects some layers related to state services, such as parcels and roads, but cannot redistribute them.

Act 20 (2013-15 Biennial State Budget) includes the Statewide Parcel Initiative

With parcels now part of a public statewide layer and a national shift toward open data occurring, DOA pushed for all data created with WLIP funds to be publicly accessible

Funding

No centralized funding model to support local geodata production

Many counties continue to charge for data as a way to recoup costs

Minnesota

Wisconsin

WLIP funding takes the form of real estate recording fees retained at the county level and grants awarded by DOA

High incentive for counties to participate due to funding availability

Participation in the program means all geodata produced using WLIP funds is publicly accessible

Workflows

Self-service model for contributions to the MN Geospatial Commons platform

Once per year, counties submit specific datasets to DOA

WI State Cartographer's Office processes parcel data into the statewide layer; Robinson Map Library authors metadata, archives all layers and creates discovery online

Contributors have full control of resources, but the extensive workflow presents too high of a barrier for many counties & cities.

Minnesota

Wisconsin

All data are made publicly available for download via GeoData@Wisconsin and the B1G Geoportal

Discussion and lessons learned

◎ The key elements of legislation, funding, and workflows directly impact success in providing open data to the public in an efficient and usable way

◎ Collaboration between geospatial data producers & librarians is valuable to this process

   - Specialize in discovery and access to information

   - Eliminate misconceptions about metadata

   - Expertise in archiving and preservation

While sometimes taking different approaches, Wisconsin and Minnesota continue to learn from each other
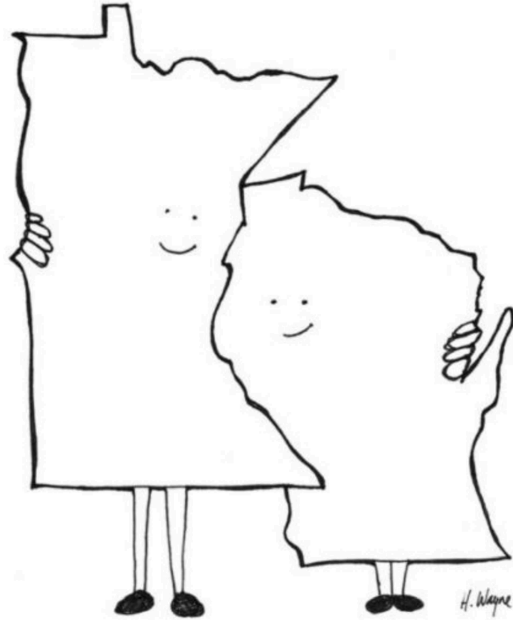
Credits

◎ Maps on slides 14 & 15 created by Yijing Zhou (https://www.yijingzhou.com/)

◎ Presentation template by SlidesCarnival

◎ Drawing on slides 6 & 20 by Heather Wayne