



The Age of Information

ICMA | conference

Local Government
REIMAGINED CONFERENCE

APRIL 10 - 12, 2024 BOSTON, MASSACHUSETTS



Nick Mastronardi, PhD

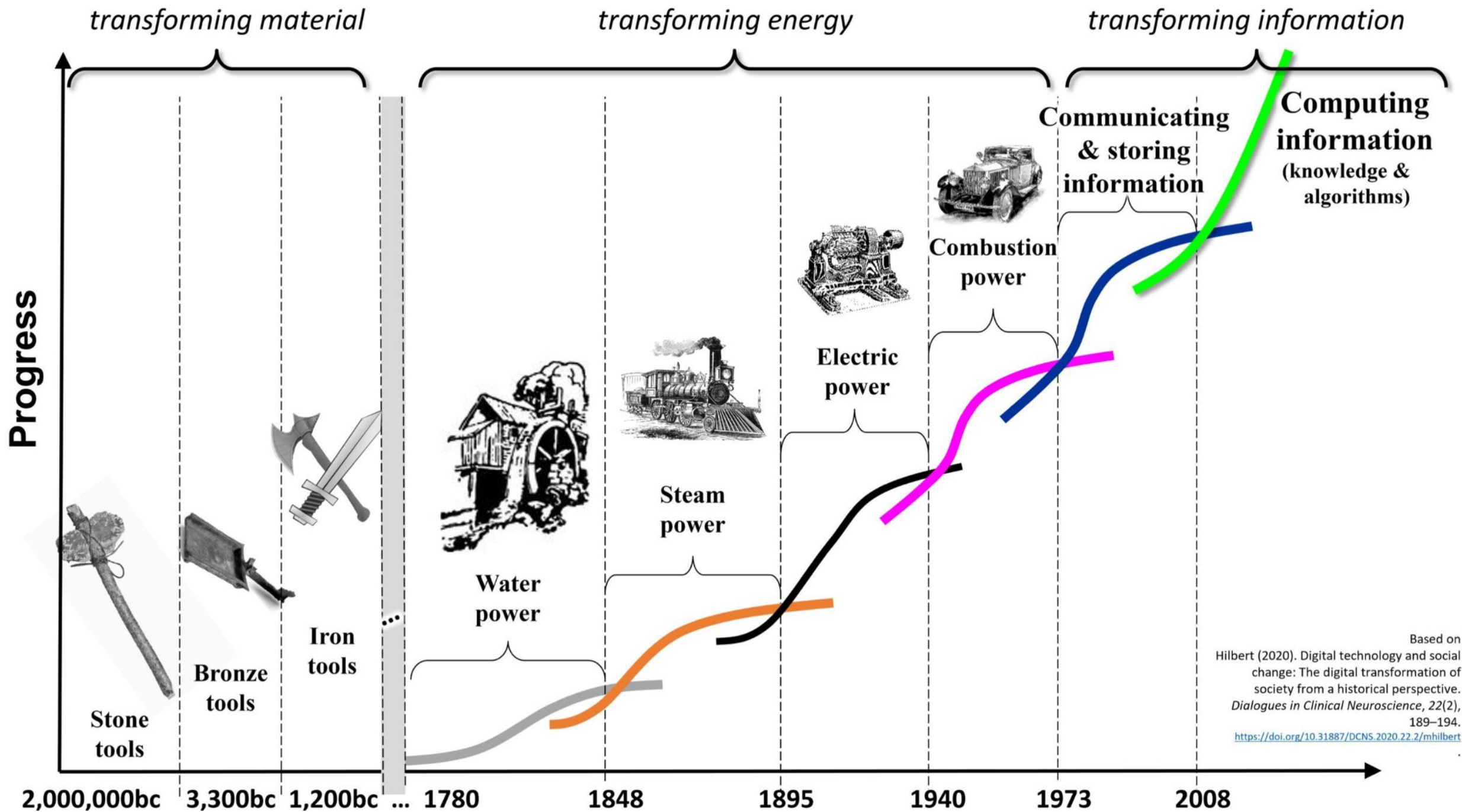
CEO, Polco



Tobin McKearin, PhD

VP Data Science, Polco





Based on
Hilbert (2020). Digital technology and social
change: The digital transformation of
society from a historical perspective.
Dialogues in Clinical Neuroscience, 22(2),
189–194.
<https://doi.org/10.31887/DCNS.2020.22.2/mhilbert>

Benefits of AI for Local Governments

- Automation of Work
- Environmental Sustainability
- Improved Customer Service Delivery
- Data-Driven Policy Making
 - Increased access to data and analytics promoting Data Driven Decision Making
- Predictive Analytics for Decision-Making & Planning

AI and Data

"Big data is the new oil"

The companies, governments, and organizations that are able to mine this resource will have an enormous advantage over those that don't.

Jeff Bertolucci, Information Weekly

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If AI is the Wild West, is **data the new gold?**

The whispers around the watering hole are true. AI really is the new gold rush. With the usual tech cowboys looking to strike it rich. Only this time around, they've set their sights on something else: your customer data.

Truth is, AI is only as good as the data that goes into it. Which the hucksters and hawkers are more than happy to sell to the highest bidder.

But if you ask us? Well, that just don't cut it. You see, we believe your data is just that – yours. Meaning, we never see it, never train AI on it, and never ever sell it.

So, yeah, while the others are busy making your data their business, we'll stick to the thing that's always been our business – building technology our customers can trust.

Because, after all, we've got a saying 'round these parts:

Your data is not our product.

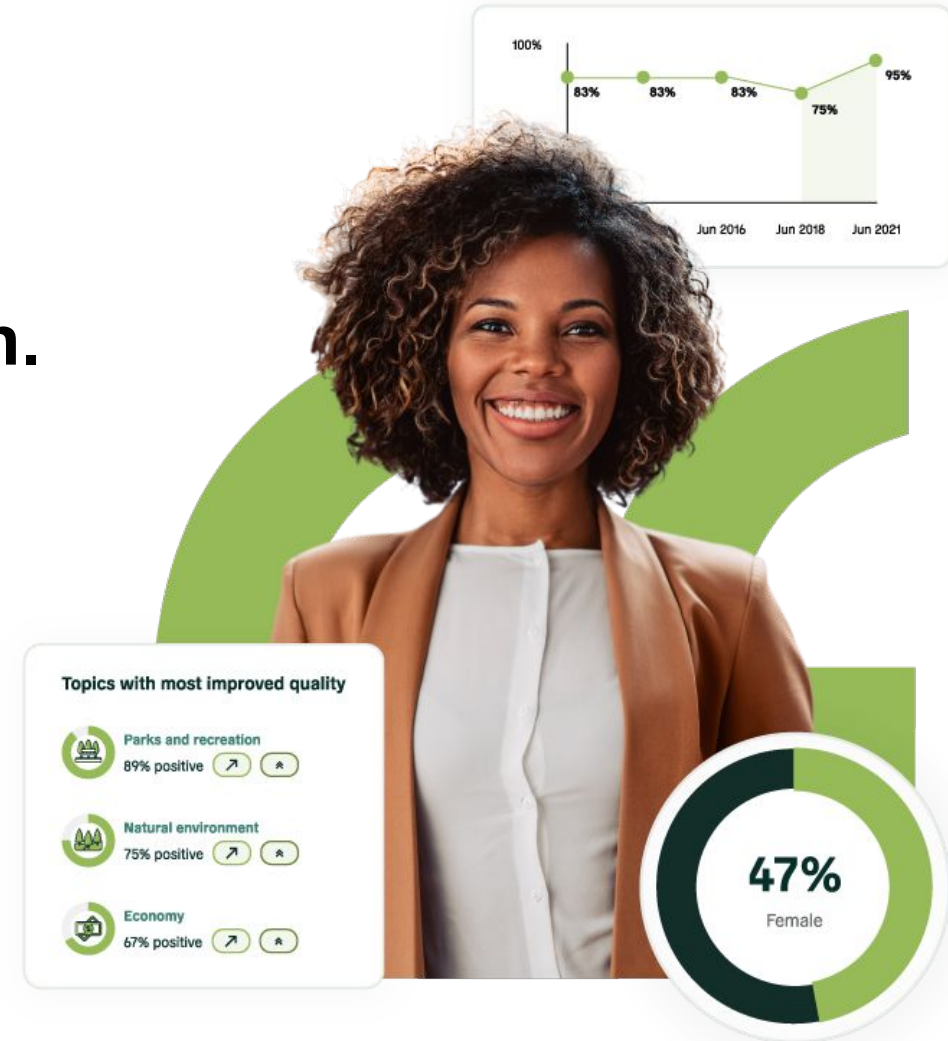
salesforce
Ask More of AI

Data Driven Decision Making



Data driven decision making is the practice of basing decisions on the analysis of data rather than intuition.

DDDM brings together appropriate data sources, analyses and metrics to inform choices, reasoning, and actions. In the end, DDDM gives sound credence to new policies and initiatives.



The Data Divide



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**“All I want for Christmas
is a data scientist.”**

- New Mexico City Manager



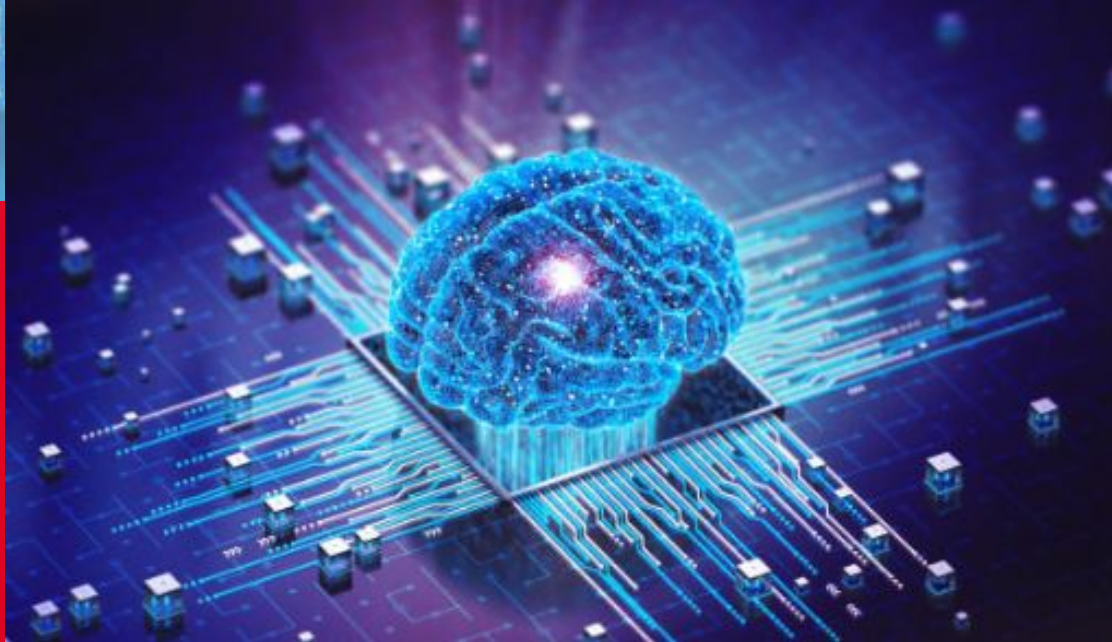
Discussion



How well are your staff prepared to use AI and the new tech?

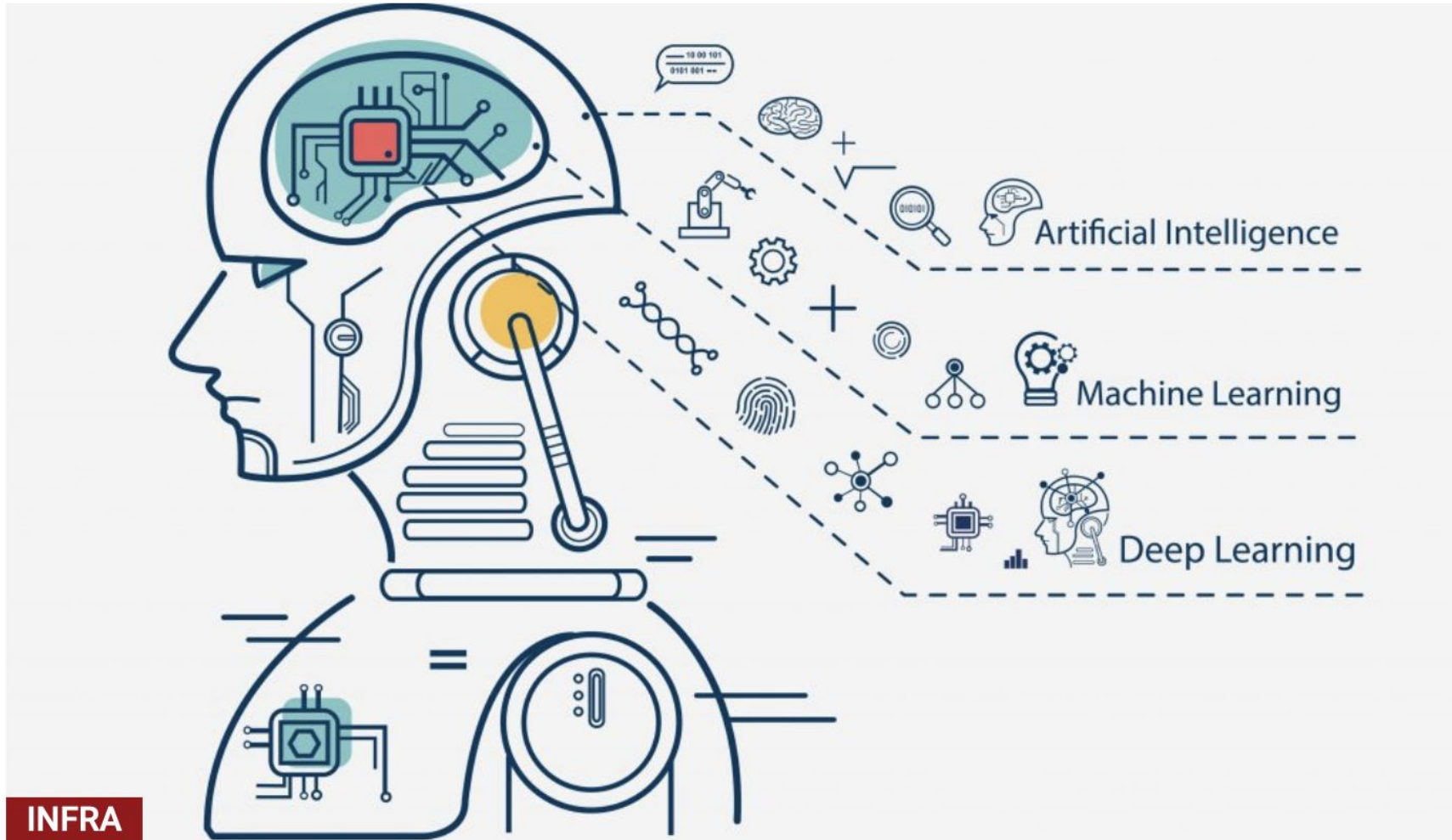
What skills do you need to train for?





Advancement of Data Driven Decision Making Through AI

Data is the new development kit.



AI for Data Analytics and Decision Making

- Descriptive Data Retriever
- Basic Data Analyzer
 - Analyzing data for correlations, disparities & outliers
- Predictive Analytics
- Real-time Monitoring and Evaluation
- Prescriptive Agent

Machine Learning/AI in Everyday Life



What should I watch ...

Netflix Recommendations

Spotify Playlists

I do love that song...



How did they know I was looking for this ...

Social Media Ads



But machines do not always know what's best...



AI is only as good as we train it to be



Large Language Models

Open AI's Chat GPT , Google's ~~Bard~~ Gemini, and Microsoft's CoPilot are all so impressive! They can do so much and are trained in a variety of topics and subject areas.

1. <https://chat.openai.com/>
2. <https://gemini.google.com/app/8e9787ce65b89201>
3. <https://copilot.microsoft.com/>



Polly is trained to be helpful to local governments, that is, she is additionally trained on dozens of public data sets applicable to the place or county level

How many registered voters are there in Sarasota County, FL?

 ChatGPT

As of my last update in January 2022, I don't have access to real-time data, including the current number of registered voters in Sarasota County, FL. Voter registration numbers can fluctuate due to various factors such as new registrations, removal of inactive voters, and updates to voter rolls.

To obtain the most accurate and up-to-date information on the number of registered voters in Sarasota County, FL, you can visit the official website of the Sarasota County Supervisor of Elections or contact their office directly. They typically maintain updated voter registration statistics and can provide you with the latest numbers.

CoPilot – I hit my
5 question limit

 Gemini

I'm still learning how to answer this question. In the meantime, try Google Search.



How Many Registered Voters are there in X?



how many registered voters are there in Sarasota County, FL?



I'm sorry, but I can only provide data for Pinellas County, Florida (FIPS code 12103) and its parent FIPS, the State of Florida (FIPS code 12). If you have any questions or need data related to these areas, please let me know how I can assist you further!



Ok, how many registered voters are there in Pinellas County, FL?



In Pinellas County, FL, there were 734,827 registered and eligible voters as of the latest data available. This information comes from the Election Assistance Commission Election Administration and Voting Survey. The data was recorded in 2021. If you have any more questions or need further assistance, feel free to ask!

How has that changed since 2015?



The number of registered and eligible voters in Pinellas County, FL, has seen some changes since 2015:

- In 2018, there were 716,401 registered and eligible voters.
- In 2020, the number increased to 749,865 registered and eligible voters.
- Most recently, in 2021, the number slightly decreased to 734,827 registered and eligible voters.

These figures show a general increase in the number of registered voters from 2015 to 2020, followed by a slight decrease in 2021. If you have any more questions or need further information, feel free to ask!



Using AI for Government Decision Making

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DDDM and AI in Local Government


Planning

Budgeting

Fundraising

**Program and
Policy
Development**

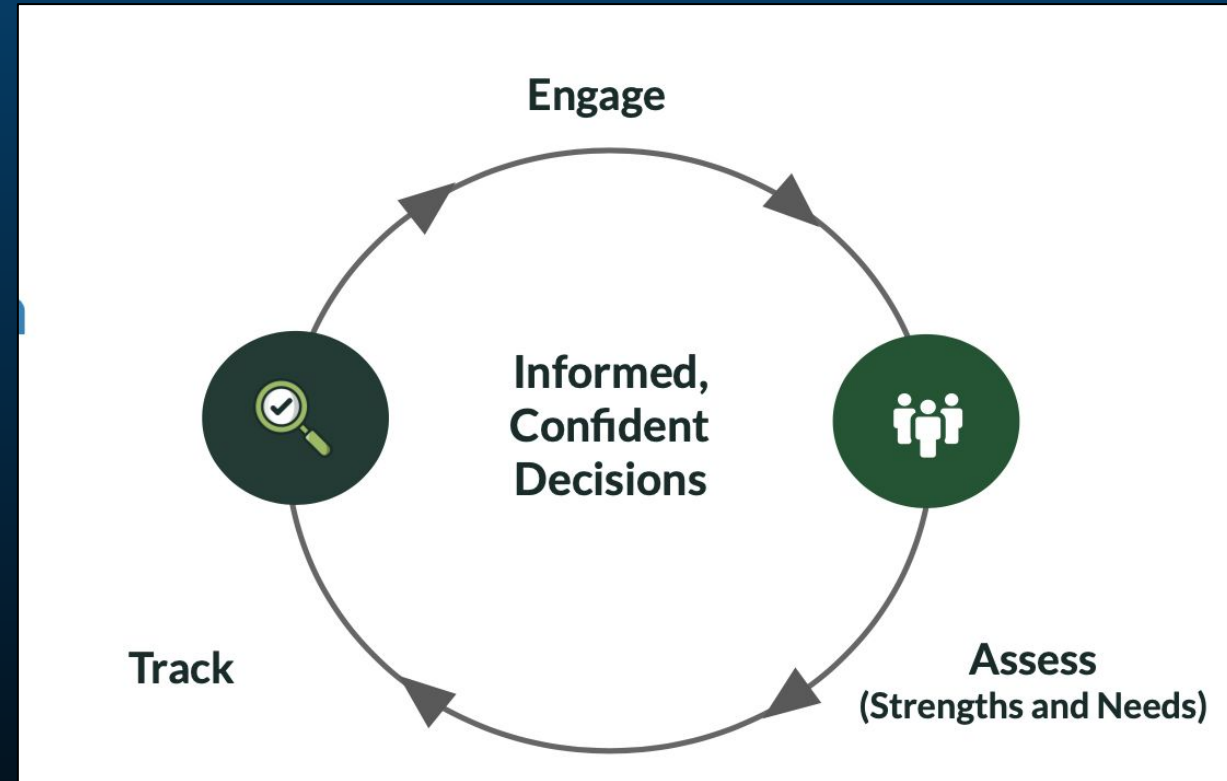
**Performance
Measurement**



we need to alter the next examples – need the CLS, GPAL dashboards, BA, Polly
tkm did this pretty good through Strategic Planning, need to work on Budgeting.
And I think we just do those 2, we are going to be close to time already trying to get examples
and give examples

Key Uses of Data in Strategic Planning

- Data on community needs help drive plan goals and activities
 - Data to identify strategies and new policies
- Data to measure performance



Government Performance Action & Learning (GPAL)

GPAL (gee-pal) is the premier system for government performance data, analytics, and visualization, helping government leaders better understand their performance metrics and the factors that impact them. Guiding actions that optimize public resources, improve quality of life, and sustain thriving communities.



 **National Research Center**
at Polco





The Overview Dashboard

Performance Summary

Score last updated December 2023

Benchmarking

[Reset Filters](#)

My State
Compare my score to communities within my state

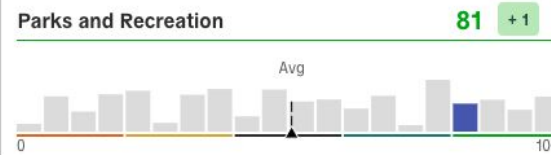
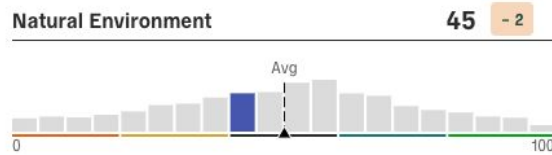
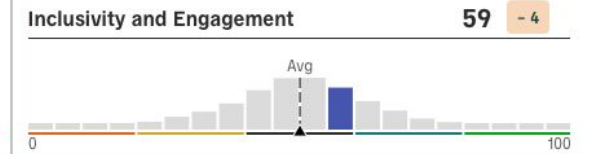
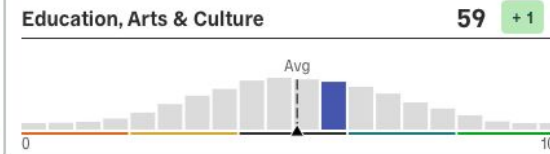
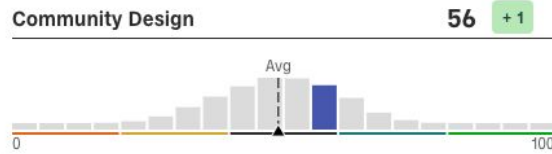
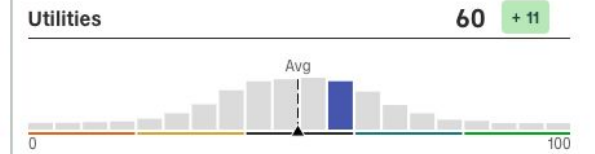
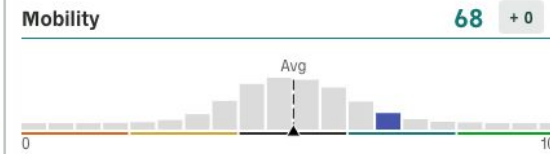
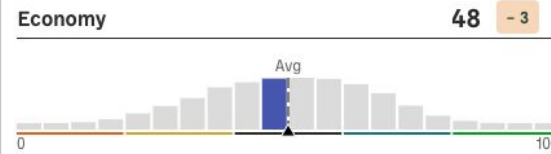
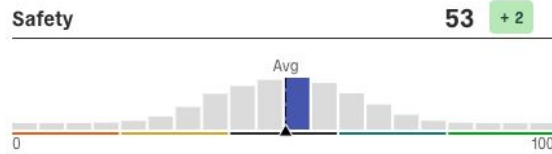


Population Size
Compare my score to communities with a similar population



Domain Index Scores

● My Community



Coming soon: Socioeconomically Adjusted Indicators



This chart displays your index scores for each domain. Each score is the average of the percentiles for each indicator in that domain. The indicators used to calculate the score are a combination of data from public sources and resident sentiment data from The NCS.

Robust engagement tools for community participation and progress monitoring

A single view of Community Livability domain factors impacting your community



The Overview Dashboard (cont'd)

Community Livability

🔄 Last updated January 2023 ↓

Measuring community livability starts with assessing the quality of life of those who live there, and ensuring that the community is attractive, accessible, and welcoming to all.

Community as a Place to Live ⓘ



98% Positive

^ More favorable than benchmark

Overall Quality of Life in Community ⓘ



95% Positive

^ More favorable than benchmark

Demographics

🔄 Last updated January 2022 ↓



Percent Adults 25 Years and Older with Bachelors Degree

61.3%



Median Annual Household Income

\$104,197



Median Age

48.4

Governance

🔄 Last updated January 2023 ↓

Strong local governments produce results that meet the needs of residents while making the best use of available resources, and are responsive to the present and future needs of the community as a whole.

Overall Confidence in Local Government ⓘ



62% Positive

- Similar to benchmark

Total Government Operating Expenditures per Capita ⓘ

\$1,234.19

Overall Quality of Local Government Services ⓘ



84% Positive

- Similar to benchmark

Side by side analysis of
quantitative metrics and
stakeholder sentiment

Community Livability Snapshot



ON TRACK

- Economy
- Health and Wellness
- Inclusivity and Engagement
- Safety
- Community Design

NEEDS ATTENTION

- Utilities
- Mobility
- Natural Environment

POSSIBLE EXCESS

- Education, Arts, and Culture
- Parks and Recreation

Goal: Invest in road, sidewalk, and airport infrastructure to provide for connections and future growth

Managing and building the infrastructure within Rock Hill is a critical factor in the growth of the community. Strong connectivity, through roads, sidewalks, and other transportation facilities provides a foundation for development and improves mobility choices for Rock Hill residents.

Develop a public transit system to support mobility amongst residents and visitors

Achieve an on-time goal for all City bus routes	<i>Of at least 90%</i>
Ensure exceptional customer service with City bus routes	<i>With less than 1 complaint per 50 passenger trips</i>
Maintain a fare-free bus system through external partnerships	<i>See at least 40% of the City's contribution covered by partners</i>

Invest in road, sidewalk, and airport infrastructure to provide for connections and future growth

Begin instrument landing system installation	<i>By 6/30/2024</i>
Achieve a pavement condition index average	<i>Of at least 75% by 6/30/2024</i>
Increase the percentage of residents who rate street repair positively	<i>Above 18% satisfaction</i>
Increase the percentage of residents who rate sidewalk maintenance positively	<i>Above 41% satisfaction</i>

Reduce the crime rate and support community efforts to improve resident safety

Respond timely to all Priority One public safety calls	<i>Below the UNC School of Government benchmark average of 5.3 minutes</i>
Reduce citywide property crime	<i>By at least 2% annually (based on five year average)</i>
Reduce citywide violent crime	<i>By at least 1% annually (based on five year average)</i>
Contain residential fires to the room of origin	<i>By at least 75%</i>
Increase the percentage of residents who feel very or somewhat safe	<i>By more than 57% satisfaction</i>






The Safety Dashboard in GPAL

Home Fire: The prevalence of home fires in a census tract over a 5-year period.



Fire and EMS  


 More favorable than benchmark

33.17

Data from Red Cross Home Fire Risk In 2015

Property Crime Rate



Law Enforcement  


 More favorable than benchmark

261.77 crimes per 100,000 residents  + 158.84

Data from Federal Bureau of Investigation Uniform Crime Reporting In 2021

Violent Crime Rate

Law Enforcement  

 More favorable than benchmark


57.67 crimes per 100,000 residents  + 8.11

Data from Federal Bureau of Investigation Uniform Crime Reporting In 2021

National Community Survey

2021  

The NCS provides a comprehensive and accurate picture of resident perspectives about community livability and local government services.

Overall Feeling of Safety 

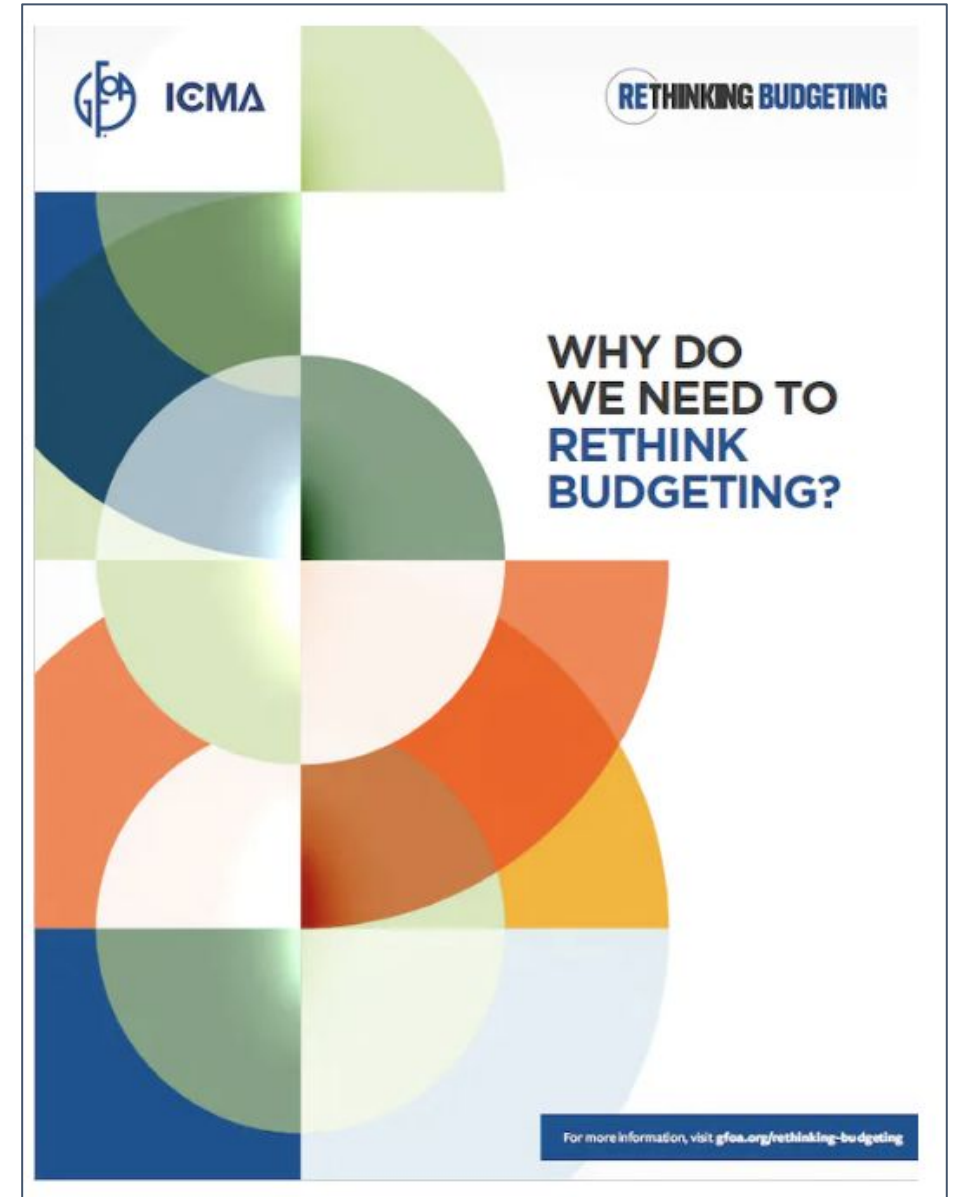


83% Positive

 This is a snapshot of the resident sentiment data included in your index score. [More information](#)

Data for Budgeting

- More nimble, flexible
- Better alignment with strategic planning
- Stronger focus on outcomes
- Better inclusion of stakeholder opinion



You are in deficit.

-\$1.0m

Revenue

Spending

Residents Priorities Balancing the Budget

Property Tax: \$33.6m

Sales Tax: \$38.5m

Sales Tax: \$38.5m ⓘ

How should the City plan for next year's anticipated sales tax?

- I'm very optimistic about the economy. Increase your planned sales tax by 2% +\$770,160
- I'm optimistic about the economy. Increase your planned sales tax by 1% +\$385,080
- The economy next year will be the same as this year. Assume no change in sales tax.
- I'm pessimistic about the economy. Decrease your planned sales tax by 1% -\$385,080
- I'm very pessimistic about the economy. Decrease your planned sales tax by 2% -\$770,160

Share

Comment

Michelle suggests to get something better in here from BA

Public Works Dept: \$9.0m

Information Technology: \$7.5m

Planning & Development Sv Dept: \$4.8m

General Government: \$14.7m

Public Agency & Other Uses: \$1.6m

Taxpayer Receipt

Invite your friends and family to get their receipt:



Your 2019 City and County of Denver Tax Receipt

Affordable Housing	\$9.09
Social Impact Bond i	\$2.36
Denver Housing Division i	\$0.52
Dedicated Resources for Affordable Housing i	\$6.21
Capital Projects	\$20.83
Bond Principal and Interest Property Tax Mill i	\$0.00
Capital Improvement Projects i	\$20.83
Improvement and Maintenance Property Tax Mills i	\$0.00
Community Planning and Development	\$21.10
Board of Adjustment for Zoning Appeals i	\$0.22
Planning, Permitting, Inspections and Administration of Community Planning & Development Dept i	\$20.88
Courts/Legal	\$39.23
Office of the Municipal Public Defender i	\$1.42
City Attorney i	\$21.74
Denver County Court i	\$16.06

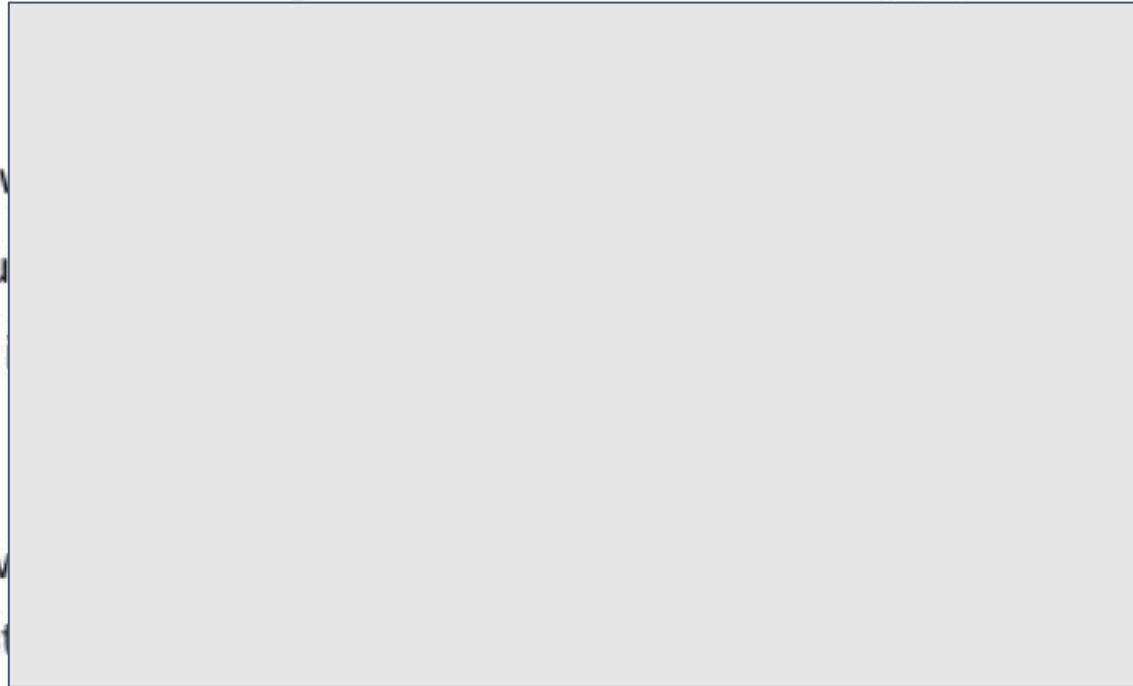
Add in Budget question example for Polly



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These figures show
followed by a slight
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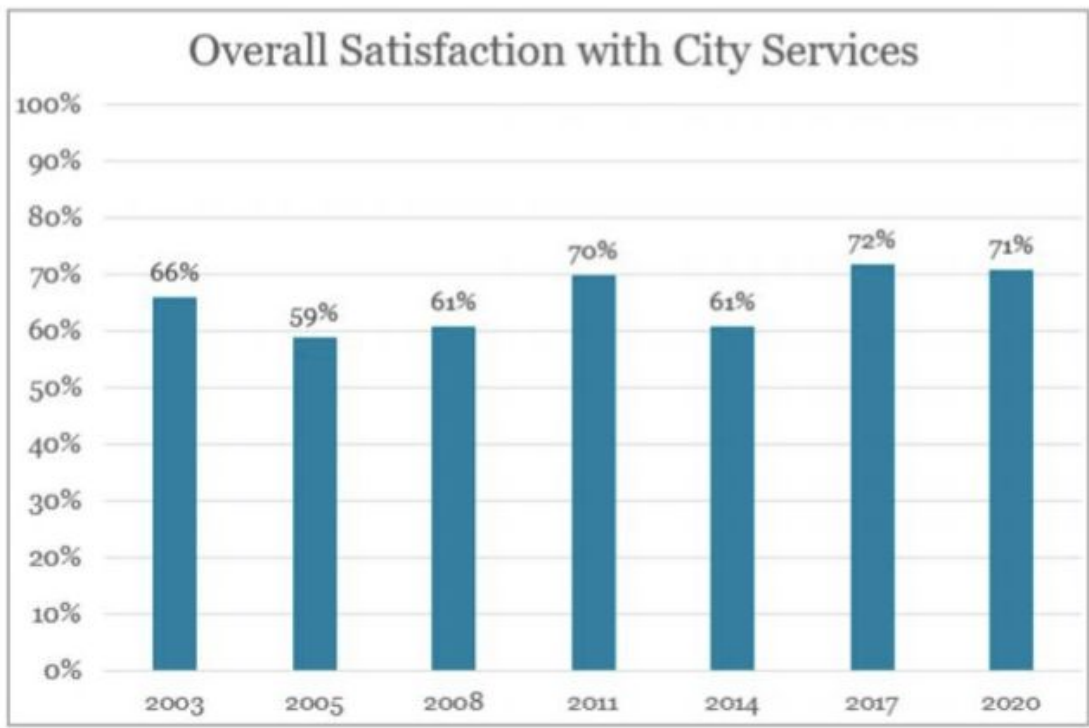
ered and eligible

om 2015 to 2020,
ed further information,

Data to Track Performance

Serving our Community

The heart of our community is the residents who live, work and play here. “Serving our Community” highlights our dedication to local efforts—safe neighborhoods, local recreational opportunities, reliable utility infrastructure, and customer service. People choose to live in Rock Hill because of what our community offers residents—welcoming neighborhoods, stable employment, and a community rallied around a common purpose—cultivating the best community in America.



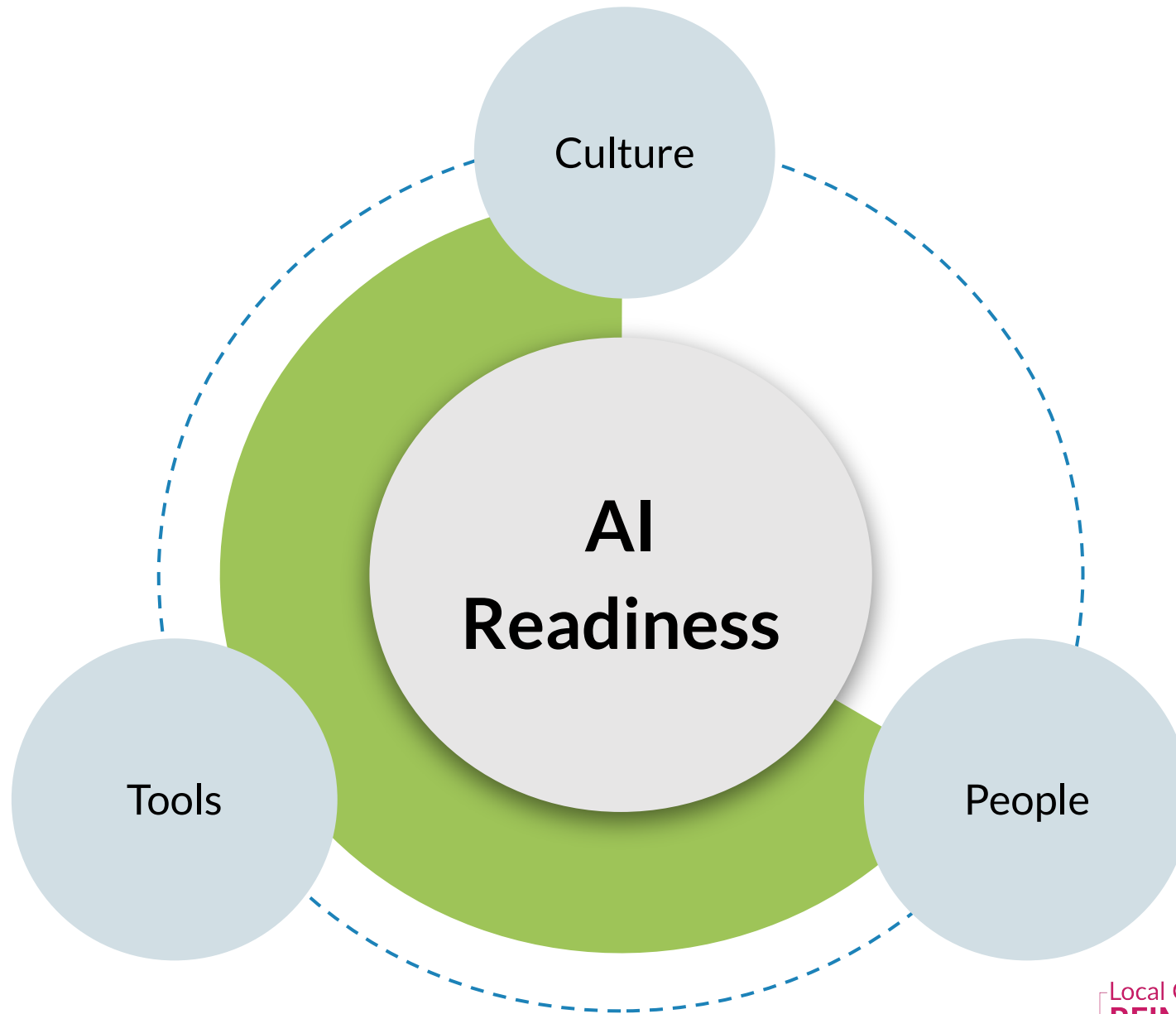
Percent respondents rate as 'excellent' or 'good'



Preparing Your Organization for AI

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An AI Oriented Culture



Successful programs require an incentive system that favors risk taking. Harvard Business School



GROUP DISCUSSION

- In what areas did you score the highest?
- In what areas did you score the lowest?
- What is the easiest first step?



Moving Forward

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For More Information on xx (put gpal, polly, etc. here)

The Secret Ingredient to Employee Retention:

<https://blog.polco.us/secret-ingredient-employee-retention>

How Goodyear Became the Highest-Rated Workplace by Surveying Employees:

<https://blog.polco.us/goodyear-highest-rated-workplace-surveying-employees>

Law Enforcement Employee Surveys Article:

<https://blog.polco.us/law-enforcement-employee-survey-reveals-silver-linings>

Do Women and Men See the Local Government Workplace Differently:

<https://blog.polco.us/women-men-see-local-government-workplace-differently>

The Great Resignation Impact on Local Government:

<https://blog.polco.us/great-resignation-local-government>





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Data is the new development kit.