

From Map Person to Information Leader in GIS

by Izabela Miller

Technical excellence often opens the door to leadership in GIS, but it rarely prepares professionals for what comes next. Drawing on the journey of Izabela Miller, the author of *The Science of GIS Leadership*, and on the themes explored in this book, the article suggests that the future of GIS depends on leaders who can move beyond production work and become stewards of vision, systems, people, and better decisions.



Fig. 1 - Author portrait or speaking photo: Izabela Miller reflects on the leadership lessons that emerge when GIS professionals move from technical execution to strategic influence.

For many of us, leadership in GIS does not arrive with ceremony. It arrives with more responsibility.

You become the one who understands the data, the applications, the workflows, and the recurring problems no one else can quite solve. People start depending on you. They call you into meetings. They ask for your opinion. They trust you to fix what is broken, explain what is confusing, and deliver what is urgent. And then one day you realize something important: technical excellence may have earned

you credibility, but it has not fully prepared you for leadership.

That realization changed my career.

Like many others in this profession, I began because I loved the work itself - maps, data, analysis, and the satisfaction of making complex information visible and useful. I grew from intern to technical roles, then into broader responsibilities. Along the way, I noticed not only the power of GIS, but also how often that power remained underused. I saw technology sitting in the corner, spatial thinking

disconnected from strategy, and talented professionals stuck in reactive service rather than helping to shape decisions at a higher level (Miller, 2026).

What I gradually came to understand is that the biggest transition in GIS is not from one software platform to another, nor from desktop to web, nor even from analyst to manager. The deepest transition is internal. It is the shift from seeing yourself as the person who makes the map to seeing yourself as a leader responsible for how information moves, how decisions are supported, and how systems and people are sustained.

That is the leadership shift I want to talk about here.

When technical excellence is no longer enough

In GIS, people are often promoted because they are exceptional doers. They know the systems. They can solve problems under pressure. They are reliable. They are helpful. They can rescue a failing project, build an app on a tight timeline, or explain the data to people who have never opened a geodatabase.

These are valuable capabilities. They matter. They should be respected.

But leadership asks for something more. Leadership asks whether you can set direction, not only complete tasks. It asks whether you can connect GIS to organizational priorities, not only respond to requests. It asks whether you can build trust across departments, communicate with executives, protect your team's time, design sustainable workflows, and make difficult choices when resources are limited.

This is where many GIS professionals feel tension. Their title may have changed, but their identity has not. Their calendar is still crowded with urgent requests. Their value is still measured by output. Their instinct is still to jump in and save the day. They remain trapped in what I call hero mode - highly capable, deeply committed, and constantly at risk of burnout.

While writing *The Science of GIS Leadership*, I saw this pattern repeatedly in my own experience and in the experiences shared by leaders across the profession, across industries, and across the globe. Again and again, I heard versions of the same story: people were trusted with more responsibility, but given very little support in learning how to lead. The

organization assumed the skills would transfer automatically. They did not (Miller, 2026).

That gap matters because leadership in GIS is not simply about supervising people. It is about shaping the conditions in which better decisions can happen.

The trap of being “the map person”

Being known as “the map person” can feel flattering at first. It signals usefulness. It reflects skill. It often comes from years of dedication and craftsmanship.

But it can also become a trap.

The phrase carries a subtle limitation. It keeps GIS close to the product and far from the purpose. It frames our contribution as something requested at the end of a process rather than something essential to how organizations understand themselves, plan their future, manage risk, and deliver services.

At some point, another map is not enough.

The problems many of us care about most - infrastructure, resilience, growth, public services, climate, utilities, land use, mobility, emergency response - cannot be solved by cartographic output alone. They require decisions, coordination, investment, governance, and communication. They require location intelligence to be present where choices are made, not only where reports are produced. That is why the identity shift matters so much.



Fig. 2 - Career transition visual: The professional shift from technical expert to information leader requires more than a title change - it demands a new identity, broader responsibilities, and a different measure of success.

When professionals remain psychologically attached to the role of technical producer, they often underclaim their real value. They wait to be invited into strategic conversations. They apologize for asking for standards, budgets, or staff. They continue to say yes to everything because being helpful feels safer than being directive.

By contrast, when they begin to think of themselves as information leaders, their questions change. They ask what decisions GIS should support. They ask which workflows need to improve. They ask how to move from reactive service toward sustainable capacity. They ask how to translate the language of maps into the language of organizational priorities. This is not ego. It is maturity.

From mapmaker to information leader

One of the central ideas in my book is that GIS leadership requires an identity shift from mapmaker to information leader (Miller, 2026). That phrase matters because it expands the professional imagination.

An information leader does not abandon technical craft. On the contrary, technical credibility remains foundational. But it is no longer the ceiling. It becomes the base from which broader leadership can emerge. To lead in this way means understanding that GIS is not just a toolset. It is an information service embedded inside a larger organization. It must be reliable. It must be understandable. It must connect to the mission. It must justify investment. It must be governed. It must be explainable to people who will never consider themselves GIS users.

This perspective changes what success looks like.

Success is no longer defined only by how many maps were produced, how many requests were completed, or how quickly a workflow was patched together. Success becomes visible in better intake processes, better prioritization, clearer service expectations, stronger executive support, healthier teams, more trusted data, and more consistent decision-making.

In other words, the leader's role moves from personal production to institutional design. That shift can feel uncomfortable because it asks us to release some of the habits that once made us feel valuable. Many of us built our careers on responsiveness, competence, and problem-solving under pressure. Leadership requires us to add something deeper: clarity, boundaries, stewardship, and long-range thinking.

GIS leadership is still too often learned alone

One of the most striking patterns that emerged while writing *The Science of GIS Leadership* was how many professionals felt alone in this transition. Some were managers. Some were analysts. Some led teams. Some were teams of one. Yet across different sectors and geographies, the underlying tension was familiar: they were carrying enterprise expectations without enterprise preparation (Miller, 2026).

This matters for the profession as a whole. We invest heavily in technical training, certifications, software fluency, and platform adoption. Much less attention is given to the human and organizational side of GIS leadership: how to influence without authority, communicate value to executives, build a roadmap, protect strategic time, lead through conflict, create team alignment, or move from dependence on a single expert toward resilient systems.

As a result, many talented professionals

Practical GIS Leadership Framework

A practical leadership model for GIS built around three reinforcing moves: clarity, systems, and stewardship



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Fig. 3 - Framework diagram from the book: A practical leadership model for GIS built around three reinforcing moves: clarity, systems, and stewardship.

improvise leadership in real time while trying to keep everything running. They become overextended. They absorb organizational ambiguity. They carry invisible labor. They translate between technical and non-technical worlds without always receiving the language, support, or recognition needed to do so well. This is not only a personal challenge. It is a structural one.

If the geospatial field wants GIS to matter more, we cannot concentrate only on better tools. We must also develop better leaders.

Moving from heroics to stewardship

Another lesson reinforced through my work is that sustainable GIS leadership cannot be built on heroics alone.

Heroics are seductive. They produce quick wins. They create gratitude. They make us feel essential.

But heroics do not scale.

If an organization depends on one person to remember how the system works, answer every urgent request, fix every broken process, calm every stakeholder, and protect quality through sheer effort, that organization is fragile. The professional inside it may look competent from the outside, but often feels exhausted from within.

Stewardship offers a different model.

A steward thinks beyond immediate output. A steward asks what must be built so the work can hold under pressure. A steward protects the integrity of the data, the clarity of the workflow, the development of the team, and the long-term value of the function. A steward is no less committed than the hero. A steward is more responsible.

This shift from hero to steward is especially important in GIS because so many programs begin with one highly capable individual. In the early stages, that may be unavoidable. But when leadership matures, the system must mature too. Processes must be documented. Priorities must be visible. Standards must be defended. Capacity must be developed. The work must become less dependent on personal rescue and more rooted in shared structure.

That is where leadership becomes real.

What the future of GIS leadership requires

If we want the profession to evolve, I believe GIS leadership must increasingly be understood in terms of four responsibilities.

First, leaders must create clarity. They must

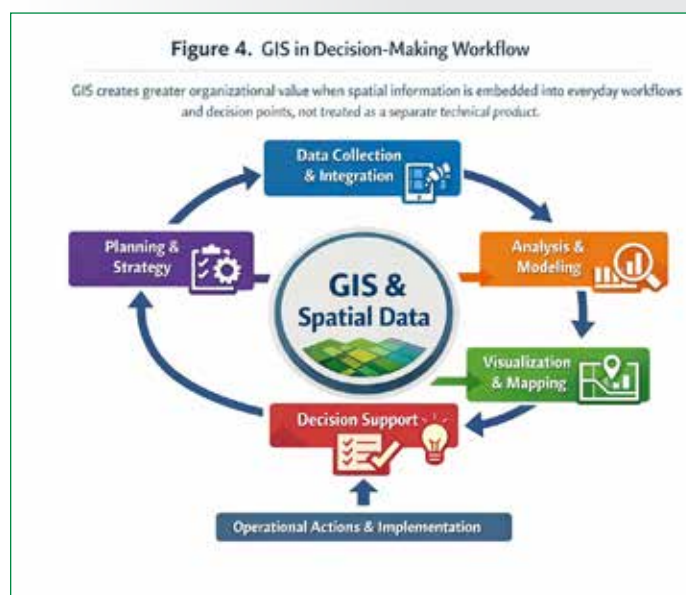


Fig. 4 - GIS in decision-making workflow diagram: GIS creates greater organizational value when spatial information is embedded into everyday workflows and decision points, not treated as a separate technical product.

help people understand what GIS is for, why it matters, and how it supports better decisions. Vague claims about innovation are not enough. The vision must be concrete enough that others can see themselves inside it.

Second, leaders must build systems. Vision without an operating structure fades quickly. GIS needs roadmaps, governance, service models, prioritization logic, and realistic pathways for delivery. Otherwise, even the strongest intentions collapse under the pressure of daily urgencies.

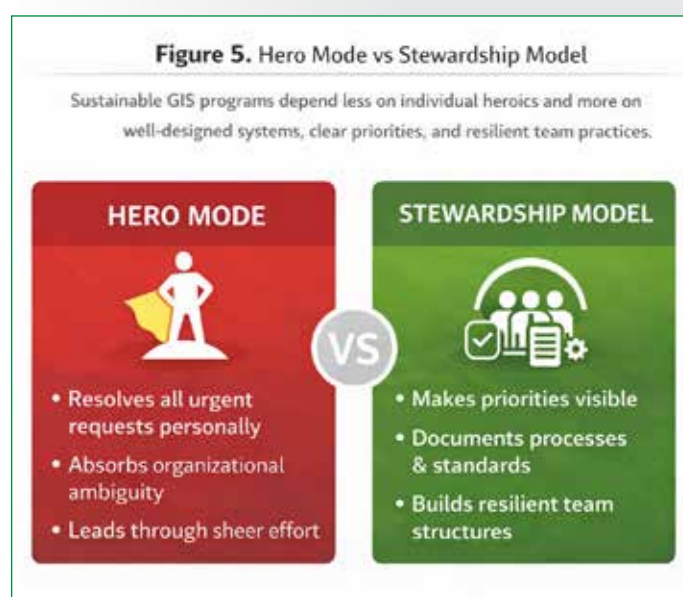


Fig. 5 - Hero mode vs stewardship model: Sustainable GIS programs depend less on individual heroics and more on well-designed systems, clear priorities, and resilient team practices.

Third, leaders must develop people. Whether someone leads a large team or works as a team of one, leadership includes the cultivation of trust, learning, accountability, and growth. GIS cannot become strategic if the humans carrying it are depleted, isolated, or invisible.

Fourth, leaders must practice self-leadership. This is the least discussed and often the most decisive layer. Professionals cannot lead well for long if they are disconnected from their own values, boundaries, fears, and identity. The work eventually exposes what has not been developed internally.

These themes shaped the framework of *The Science of GIS Leadership*, where I describe leadership through the reinforcing moves of clarity, systems, and stewardship (Miller, 2026). I do not offer them as abstract theory, but as a practical pattern drawn from lived experience and from the stories of professionals across the field.

A broader invitation to the profession

This conversation is not only for managers or directors. It is for analysts, specialists, coordinators, consultants, and every professional who senses that GIS could play a bigger role in the life of their organization. You do not need to wait for permission to begin making the shift.

You may not control the org chart. You may not control the budget. You may not yet have a formal leadership title. But you can begin by changing the story you tell yourself about your role.

You can move from “I make maps” to “I help this organization make better decisions through location-based information.” You can move from “I support requests” to “I steward an information service.” You can move from “I need to prove my value through output” to “I create value by building conditions for sustained impact.” Those shifts may sound subtle, but

they change behavior. They influence how you speak, how you prioritize, how you protect your time, how you educate others, and how you position GIS in conversations that matter. The profession needs more people willing to make that shift.

Conclusion

When I look back on my own journey, I do not see a clean line from technical expert to leader. I see layers of growth, discomfort, doubt, learning, and redefinition. I see the long process of discovering that technical mastery, while essential, was never the whole job.

Leadership began when I stopped asking only how to do the work better and started asking what kind of conditions needed to exist for the work to matter more.

That is the invitation I would offer to the GIS community now.

The future of GIS will not be shaped only by new tools, faster platforms, or smarter automation. It will also be shaped by whether we develop leaders who can connect spatial capability to real decisions, build systems that endure, and serve people with clarity and stewardship.

The map still matters.

But leadership begins when we realize we were never only here to make the map.

REFERENCES

Miller, I. (2026). *The Science of GIS Leadership*. First edition.

ABSTRACT

Many GIS professionals do not begin their careers aspiring to become leaders. They become indispensable because they solve problems, build applications, manage data, and make spatial information useful. Yet technical excellence alone does not prepare them for the deeper work of leadership. In this article, I reflect on my own journey from technical expert to leader and share lessons reinforced through the writing of *The Science of GIS Leadership*. I argue that the profession must expand its view of leadership - away from heroics, reactive service, and the narrow identity of “the map person,” and toward a model in which GIS leaders act as information stewards, system builders, and strategic translators inside their organizations.

KEYWORDS

LEADERSHIP GIS; GEOGRAPHIC INFORMATION MANAGEMENT; PROFESSIONAL TRANSFORMATION; MAPPING; GIS; DATA GOVERNANCE

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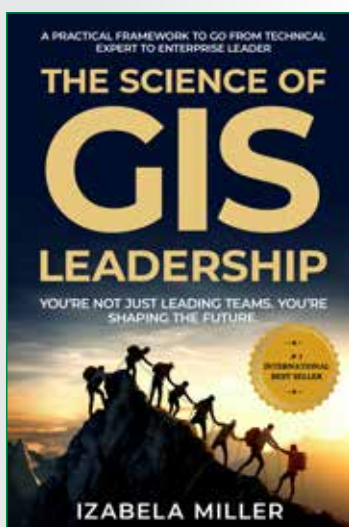


Fig. 6 - Book cover image: *The Science of GIS Leadership* explores the transition from technical expert to enterprise leader through lived experience and professional interviews.

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