# The Mindset of a Successful IT Professional

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We have written this article thinking mainly about the IT department of the future and the IT profiles needed. Management of IT could free business growth or restrain it. But this depends more on the setting of IT roles and the management paradigm chosen than on the proper use of IT tools.

Many CIOs are now leading a silent transformation, evolving their team from techies to IT professionals with a better state of awareness on how to help the company to excel. The success of future IT professionals will depend less on their technical competencies and more on their ability to help others succeed. The leadership mindset is a critical success factor for the IT department, and companies are clamoring for it.

## THE EVER-FLOURISHING WORLD OF IT

The future is now. Some of Nicholas G. Carr's predictions in his much-debated 2003 *Harvard Business Review* article[1] have come true. On the one hand, cloud service providers offer the IT infrastructure companies need on a pay-per-use basis at a fraction of the cost of any service area of internal IT, thereby ensuring better availability, security, and accessibility. The use of SaaS and the evolution of ASPs — especially with regard to ERP systems — enable any company to start trading with standardized processes, faster than with traditional implementation projects.

On the other hand, IT management has not become boring and responsible only for controlling costs and risks, as Carr predicted. Instead, when profiting from this evolution, its capacity is being freed from daily technical issues — capacity it can use to offer real business solutions. The tools of business process management (BPM) and business intelligence (BI) are facilitating a different dialogue with user areas, focusing on business issues rather than technological barriers and based on a systemic and integrated view of business.

It is also worth mentioning the personal and working benefits that people are getting from forums, and other social and professional networks facilitated by technology, which allow knowledge and service workers to improve their productivity and creativity. As Cutter Fellow Tom DeMarco noted some years before the explosion of social networks, "How the work goes on … is not nearly as important as how wide and rich are the connections."[2] Even before Facebook, Twitter, LinkedIn, and the like, DeMarco recognized how important it is for knowledge workers to manage their networks of connections. Developers are a good example of the power of knowledge sharing; it is almost impossible for them to work without using "social" help.

## WHAT ARE THE CONCERNS OF AN IT PROFESSIONAL?

If you are an IT professional, this is an exciting time — but it is also filled with plenty of uncertainty. For one thing, the economic crisis that began in 2008 continues to affect more than half of the world. But regardless of any political and economical considerations, we know that you will more often be facing the following questions:

- What is the future of my career?

- Where will I be working in the year 2015?

- Should I work for a vendor or a "client"?

- Will my ideal job be outsourced to a foreign country?

- How can I grow?

Defining a career is not a simple task. What are your career goals? What energizes you? What do you value? You have to be able to answer these questions before anything else.

Our brain, not our muscles, brings us to a better position, a better role, a better life, and a better salary ... or to failing projects and miserable companies instead. We want you to note that your career and competency development is not only shaped by your knowledge or certifications but also by your attitudes, which are usually aligned to your employer's culture; thus, management paradigms affect the performance and growth of any professional. Although this connection is not always evident, you have to be aware of it.

We intend to help you find an answer to these questions by means of a new perception, a new way of thinking

about the reality of the organization and how it could improve or impede your success as a professional.

## PARADIGM CHANGE AND THE CIO

René Descartes became the unintended ideologue of the industrial era when he established that, to understand a complex problem, it has to be broken down into as many parts as necessary, in order to deepen the understanding of each one of those parts. Although he did not seem to have opposed integrating the different partial solutions into an organic whole, this concept was missing in his theory. Hence fragmentation became the fundamental principle of the industrial era.

This situation tends to be exacerbated when senior management conveys to functional managers a set of specific goals, narrowing their focus and creating several conflicts. Conflicting functional goals result in the usual time-wasting "us against the rest of the organization" fight. Thus, the cause of every conflict in any organization is created: *local optimization*, the collective way of thinking and operating with an exclusive focus on one's functional area and believing that this helps achieve the company's goal. For example, local optimization of IT costs may require us to cancel projects that support marketing and sales initiatives, even though the latter are intended to provide benefits 10 or more times larger than the reduced costs.

Within this paradigm, any attempt at improvement has to be restricted to one functional area to "succeed," but local changes usually do not achieve the company's goals. When an improvement initiative promoted by one functional area includes changes to other areas, it faces "mind your own business" replies or lengthy bureaucratic procedures and unwieldy committees. We usually refer to this situation as "silos" or "feuds," and the silo mentality is only one symptom of the underlying management paradigm. Another example of local optimization is reflected in IT organizations. For instance, software development is frequently tied to the rest of the organization by the extremely low-quality link of "requirements identification," in which requirements are developed as if both parties were enemies. Development professionals rarely understand the business of the other internal areas or of the external client.

### Optimization Goes Global

Following the lead of the Total Quality Management (TQM) and reengineering movements, a few companies whose top management understands the losses produced by local optimization have recently begun to focus on a few integral processes that cut across functional areas. Successful managers are studying, modeling, reengineering, and automating their key end-to-end processes, but more importantly, they are managing them as a whole, not as a set of separate tasks.

We are beginning to understand that a company is a very good example of a *system*, with all the attributes that come with the concept — the *purpose* or *goal* being the most relevant. This concept is foundational to W. Edward Deming's TQM, Eliyahu Goldratt's Theory of Constraints (TOC), and other current management tools.

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A systemic view can be applied to complex and large organizations without having to deal with too many variables to improve them. Goldratt, developer of TOC, a systemic approach to management, cites Isaac Newton:

> *Natura valde simplex est et sibi consona.* (Nature is exceedingly simple and harmonious with itself.)[3]

Goldratt extends the simplicity of nature to the simplicity of reality, articulating the existence of an *inherent simplicity* in all complex systems based on the understanding of the cause-effect relationships. He argues that in any complex organization there are a few root causes that determine one specific situation, and by acting on these causes, you can manage the whole system toward its goal. This is the foundation of a new, very important focus of management: *global optimization*.

Global optimization shows in organizations as an environment of mutual trust and respect. Not surprisingly, these characteristics are also the essence of the agile movement. Based on these new ideas, are we able to consider, test, and figure out the following assumption:

> The organization is not able to achieve its goal because of a few real problems, which generally are conflicts (human-created contradictions) based on local optimization. So if we change our focus to global optimization, the conflicts should disappear.

What does global optimization mean to management? First, it requires acknowledging the system's goal; that is, the main objective the organization is trying to accomplish. The goal is usually defined by the owners — for instance, "increase profit 15% yearly."

Second, improvement efforts must be focused on the necessary changes in the organization's units that help it to achieve more of the system's goal. Decisions are made at the level of the organization as a whole, not at the area level. Therefore, the areas are subordinate to the level of the whole organizational system.

> **You cannot predict the future, but you can build it.**

## A SYSTEMIC APPROACH POWERED BY IT

The new paradigm is so different from the former one that it is extremely difficult for a CIO and his or her management team — who have been educated and formed within the ideology of the industrial era — to accept that they can and should change their fundamental principles. Yet it is a fact that in any area of expertise you look at, you will find new alternatives for doing what you need to do. IT is no exception.

The adoption of any IT solution (new processing hardware, new architectures and languages, cloud services, new practices to manage the area's internal performance, etc.) should be related to only one basic question: "Does the company as a whole achieve more of its goal faster thanks to the proposed solution?" If the answer is "yes," any further questions regarding technological trends will be merely tactical issues or ways to implement something useful. Any new technology or trend must be analyzed in this context.

IT is one of the few areas that could naturally possess a systemic view of the company and could help with cross-functional improvements, but it has not always had the leadership to assume an integral role. How can we define IT as part of a systemic look at the organization and find out the organization's real purpose?

Accepting that the system is the company in this exercise, we can go from the general to the particular, stating the fundamental concepts needed by the system:

1. Companies (organizations) have a goal defined by their owners, be they private or public.

2. The first important decision that an organization's senior managers have to make is about the "direction" they are choosing in order to achieve the goal. In other words, how are they going to differentiate themselves in the market so the client will choose to buy their products or services and not others? This is the creation of a competitive advantage.

3. How will IT contribute to make that competitive advantage possible?

In order to answer the last question, the CIO should:

- Know what the technology can offer and the alternatives available (cloud computing, SaaS availability, make or buy options, etc.).

- Understand the company's business and its culture in order to propose the best way to sustain or improve the competitive advantage with feasible solutions. By "feasible," we mean knowing how to implement it successfully within the organization.

- Manage the area so that the costs and risks can be kept low enough to guarantee that the company can achieve its goal *now and in the future*, which implies:

  ○ Choosing the best way to implement what is needed from among the alternatives available at any given time

  ○ Having stable human resources, who are accountable and satisfied with their jobs

  ○ Managing vendors in a long-term, win-win relationship

Within this framework, we can define the main accountabilities for the IT area, and then define roles and main tasks (see Table 1).

## THE FUTURE IT PROFESSIONAL TEAM

You cannot predict the future, but you can build it. Do you envision an ever-changing future (with technology and organizational changes)? Then you must prepare your team to deal with uncertainties, while also being able take decisions toward the achievement of the company's goals. The people factor is essential in the success equation.

Usually, when we consider the profile of any IT professional, we think of an introvert who likes dealing with technical problems rather than with people. True or false, this image should change, and we should be looking for individuals to whom the users would like to go for help. It means that knowledge of business processes, "soft" skills, and open minds will be more important competencies than technical ones.

To define adequate profiles, it is mandatory to develop a clear understanding of outcomes from each role and the context in which each role should fit (including the company's values). Clearly stated role definitions are a necessary condition for any team's success. They also enable the recruitment of proper talent.

Table 1 — Accountabilities by Role within the IT Area

| Function | Role | Main Task |
|---|---|---|
| Provide the best solution to secure the competitive advantage and achieve the company's goal | IT manager | • Understand business needs<br>• Choose the best alternative to support the business |
| Manage human resources | IT manager | • Implement a role-accountability structure<br>• Get results<br>• Provide a safe, satisfactory working environment |
| Define and implement improvements | Area manager | • Define and implement processes<br>• Manage business solution projects |
| Manage infrastructure | Area manager | • Execute a medium-term plan according to business needs and market alternatives |
| Manage requests (incidents) and changes | First-line managers | • Define SLAs for services and act accordingly |
| Carry out operational tasks | Developers, engineers | • Solve incidents, develop applications |

Transitioning the IT department from an isolated technical functional area to a "positive catalytic" area requires IT managers to demonstrate management abilities based on the new paradigm. They must conduct a step-by-step change process with their team toward a systemic view of the company.

We suggest leaving it to your chosen vendors to run the race of technological innovation — let them hire the tech experts! However, as the domain experts of your company's business, the IT department should keep the enterprise architecture definitions within its purview. If you do so, you will have the following profiles in your team:

- **Business support personnel** are able to help users overcome any IT, IS, or business process incidents that hinder their daily duties.

- **Enterprise architects** are skillful business domain and process experts with deep knowledge of IT/IS architecture.

- **Business analysts** should act as trustable business advisors to business unit managers. Beyond process and BI tools expertise, they should be able to provide a systemic view and help users to think about other standpoints.

- **Infrastructure and network specialists** are still needed to manage and support your network, connections, telecom, desktops, mobile devices, and printer services, even if you can upload everything to the cloud.

- If you are big enough, you could need a **vendor and contract manager**.

- Results-driven **project managers** with business and technology acumen are key.

You will eventually need system engineers and developers, but you will probably hire them on a contract basis.

The professionals you hire and grow for each profile need to have the basic skills of that profile, but you have to consider their personality and values as the key success factors. Do these individuals fit in the organization, or will they struggle to fit? Has your HR department understood the role outcomes, the soft skills, and the personalities you need? If the answer is "no," then you have to work with them more closely. We want to remark that in any hiring, you must work closely with your HR department; it is your responsibility to get the best people you can.

## Essential Traits and Skills

As DeMarco has made clear, knowledge work "involves invention, articulation, and skillful management of many human relationships."[4] There are essential traits and skills that every IT professional needs to ever increase:

- Business acumen within your desired market/company. What types of business are you interested in?

- Responsibility and motivation to get things done — not only by yourself, but mainly jointly or through

others. (We advise you to review Cutter Senior Consultant Christopher Avery's work on The Responsibility Process and The Leadership Gift.[5])

- Continuous learning discipline.
- "Positive curiosity" toward change.
- Teamwork and social skills.

## WHERE DO YOU FIT AS AN IT PROFESSIONAL?

What would you like to be? Allow us propose, as an exercise, that you think about these choices for your career:

- **Being a tech expert, a future "guru."** Through this path, you have to choose your next job based on how would it help you gain expertise and deepen your technical knowledge. Vendors or consulting companies will offer better opportunities for this career path. Choose an organization where knowledge exchange is valued. You should also consider joining startups where you can co-create the product or service.

- **Enjoying challenging projects as a freelancer.** You have to clarify the definition of "challenging" projects for yourself, but you will need to combine a deep technical knowledge with expertise in specific tools and prove your responsibility and problem-solving skills. Your track record and a "trustable" reputation are key to finding your next assignment.

- **Evolving to management and leadership roles.** You will have to build your career, learning how to get things done with and through others, improving your communication skills, and gaining experience in process and project management. You can choose to grow within a big company or to help midsized companies. A business analyst position could be your starting point.

- **Serving your world, helping others succeed.** If you are a helper with technical knowledge and expertise, then you are very valuable. Your profile is not common. Although some organizations consider tech support functions as entry-level positions, many more are realizing that service value relies on experienced support personnel. Your career's keys are your ability to learn and your social skills. Choose an organization that values quality of service and customer experience. Your growth will include learning about and supporting applications and processes. Avoid control-freak organizations that are hyperfocused on efficiency metrics in customer-care areas.

## RECAP

Cloud computing, SaaS, and social networks are blowing the winds of change and innovation over our practices of hiring, managing, and growing our IT teams. This change is allowing CIOs and their teams to spend more time on business improvements than on technical or application issues.

The industrial management (local optimization) paradigm is at the root of company conflicts and hampers individual growth. CIOs can help to foster a systemic (global optimization) view of the company.

The successful IT professional differs from the introverted techie stereotype that we are used to. A new mindset is required to work closely with users and managers. Professionals who enjoy helping others to do their job, which includes understanding the systemic view of the company and supporting its processes with the needed technical expertise, will succeed. We will see a growing demand for technical expertise, especially from vendors, combined with better communication and interpersonal skills.

Vendors and IT departments should not compete for the same profiles. Vendors should hire mainly technology and systems engineering experts, while IT departments should value more business-related expertise and soft skills.

Being able to focus on business goals and help improve business execution in order to achieve them is essential to CIO leadership and the success of his or her team.

> Destiny is not a matter of chance, it is a matter of choice; it is not a thing to be waited for; it is a thing to be achieved.
>
> — Williams Jennings Bryan

> Luck is what happens when preparation meets opportunity.
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> — Seneca (attributed)

## ENDNOTES

[1]Carr, Nicholas G. "IT Doesn't Matter." *Harvard Business Review*, May 2003.

[2]DeMarco, Tom. *Slack: Getting Past Burnout, Busywork, and the Myth of Total Efficiency*. Broadway Books, 2002.

[3]Goldratt, Eliyahu M., and Efrat Goldratt-Ashlag. *The Choice*. Revised edition. North River Press, 2010.

[4]DeMarco. See 2.

[5]Christopher Avery and The Leadership Gift (www.christopheravery.com).

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