

If I Were in Charge: Part 1.

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I find myself somewhere in the last decade of my professional life. Like many of us, in many different professions, who are in the same situation, I spend an increasing amount of time trying to bring the "big picture" into focus. In my case, I want to be able to see the entire enterprise of managing data so as to provide information, and to situate the sub-specialties that I have in that big picture.

Two forces are at work on all of us. In terms of the availability of knowledge to those who could make use of it, human history is a long period of making it on survival rations. The printing press inaugurated a new era of plenty, and made the scientific revolution possible. The internet inaugurated an era in which we are overwhelmed with an information surfeit.

We are still learning how survive the deluge. One strategy, adopted in almost all disciplines, is to specialize. Academic disciplines take on a fine granularity in which small groups of specialists strongly interact with one another, but generalists at any level, who can speak the language of several sub-disciplines, are few and far between. In business IT, the younger generation barely knows what a DD statement is, while the curmudgeon old-timers believe that they were "doing objects" long before the object-oriented revolution appeared on the scene. Data modeling has fragmented into relational modeling, object modeling and star schema modeling, with few modelers having expertise in all three styles of modeling.

But sub-specialization leads to sub-optimization. The logical modeler wants the DBAs to install a fully normalized model, and can trot out a list of reasons why that is the right thing to do. The DBAs want to denormalize the logical model, and will appeal to the one reason they have for doing so – to optimize the performance of queries. The programmers don't care how the data is organized; as long as it's out there, they are confident that they can write the code to maintain it, and to retrieve it.

Above all, there is the project approach to development and enhancement work. The members of a project team work hard to optimize that project along the metrics that management uses to manage projects – time and budget. Why work to design a database that will be easy to modify in the next cycle of enhancement work, when management doesn't give a damn about anything besides the cost and elapsed time of that individual project? Why, indeed?

Yet we know that it shouldn't be this way. We know that a house designed by an architect will be a better house than one built, one room at a time, without the guidance of a layered set of blueprints.

Enter the discipline (loosely speaking) of IT enterprise architecture. The job of the enterprise architect is to counter the forces of sub-optimization by representing enterprise IT as a whole, not a specific department within IT, not a specific project.

The focus of the enterprise architect is both strategic and tactical. Strategically, her job is to optimize IT over the long haul. Tactically, her job is to influence projects so they produce artifacts of maximum value, with minimal disruption to the environment they will take their place in.

Optimization, for IT, generally means cost containment. This is because most IT departments are cost centers, not profit centers. In most cases, IT counts the beans; it doesn't make them. Nonetheless, there is both an "increase" and a "decrease" objective for IT. It is to increase the value of the information it manages, and to decrease the cost of managing it.

I have spent the latter half of my professional career on the data side of the house, although in my younger days, I worked in COBOL, assembler and systems internals. I have always tried to focus on optimizing the lifetime value of the artifacts I helped to design, but always from the point of view of a data modeler or, lately, of a data architect.

Well, that history doesn't disqualify me from being an enterprise architect. Everyone who plays that role comes from one or another sub-discipline – from Operations, or Networking, or Database Management or Applications development, and usually from specialties within one of those areas.

But I have actually never played the role of enterprise architect for a major IT department. But I don't want to see the "big picture" simply for the sake of seeing it. I want to see the big picture so I can focus on IT optimization at the highest level. And that's the level at which the enterprise architect works.

So the title of this series – "If I were in charge" – means, more specifically, "If I were in charge of enterprise architecture for a major IT department". I want to articulate my vision of the IT big picture and, having done so, say what follows from it, how it tells us we should use our IT resources to best advantage.