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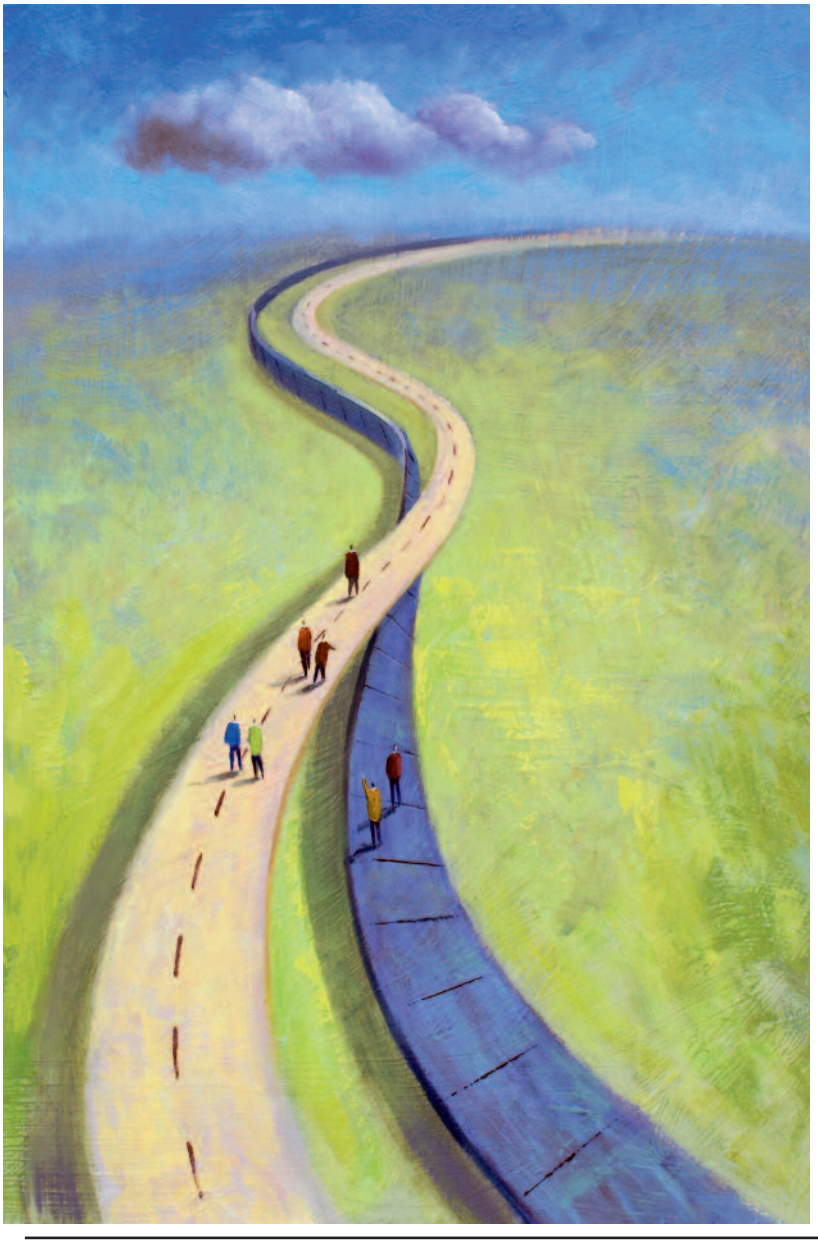

Executive Interview

Information Without Borders

Madhavan Nayar, Founder and Company Leader, Infogix, Inc.

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Photography by **Brian MacDonald**

Information Without Borders

Infogix founder Madhavan Nayar navigates the challenges of information handoffs, warns of information pollution

A mainstream player in information management, Infogix is also a study in contrasts. You could start with the brand, which remains unknown to many who work in information management, even though Infogix boasts a horde of blue-chip customers. Likewise, Infogix was recently named a "Cool Vendor" by Gartner, Inc., even though the company has been in business for more than 25 years. The disconnect might arise from the very white space where Infogix does its business of managing information integrity, the connections that exist among systems, partners and channels. If you thought this was simply a world of connectors and adaptors, it's not, as Infogix Founder and self-described Company Leader Madhaven Nayar relates to DM Review Editorial Director Jim Ericson.

DMR: *Gartner calls Infogix a cool company because of your focus on data integrity "in flight," between apps and systems and locations. Why is that a unique challenge?*

Madhavan Nayar: I'd say it is because a very real challenge exists in this space. Information that comes from a database or other repository always needs to be validated, but as data flows through applications and systems and processes, the interfaces can be false points. What we primarily do is ensure the integrity of those interfaces by verifying the information before and after it goes from one place to another. Our customers use our products primarily to establish information controls. Information controls consist of verification of information, balancing of information, meaning that the total from here equals the total from there, reconciliation of information, which refers to matching and very fine one-to-one, one-to-many or many-to-one tracking of information.

DMR: *Let's back up then. The Infogix message is about integrity of information as opposed to data. What's the distinction?*

MN: One way to categorize this is to look at the factors that contribute to the value of information. To us these factors are usefulness of information, usability of information and the integrity of the information. Usefulness is relevance and detail and so on; usability is accessibility and presentation and so on. Integrity is the trustworthiness or dependability of information. One could argue that without integrity it doesn't matter how useful or usable information is. We

generally see the attributes of integrity as accuracy, consistency and reliability.

DMR: *So what tends to go wrong across interfaces?*
MN: We categorize risk into things that are extrinsic or external to the system, and intrinsic risks within the system or process. The first common extrinsic risk factor is change. In an interface, for example, one system may change while the other part does not. The second is complexity, which means volume, speed, heterogeneity, number of interfaces and types of interfaces. The third is communication. When you transmit data from point to point there is always the risk of duplicate, missing or partial transmission no matter how good the technology is. The fourth is conversion. When you consolidate or display information or you convert it from one format or medium to another, there is always the possibility of something falling through the cracks. ETL [extract, transform and load] is a good example, a complex process that is constantly changing with lots of interfaces and in some cases it is all about conversion. Finally, there is corruption, which happens in two ways. The first is a hard disk or system failure you are never sure you have completely recovered from. The other type of corruption comes from fraud or an intentional modification or manipulation of information. Extrinsic risk factors are applicable to all systems and environments and are there whether you like it or not.

DMR: *And the intrinsic risks?*
MN: Intrinsic risk factors start with design errors, which are found long after the design is done. There are also development errors, which refer to inadequate testing and are almost always encountered. There are deployment errors, meaning if you use manual controls as you deploy your system, you are likely to find errors. There are detection errors, which tend to be found whether you use periodic or automatic detection. Finally, there are data errors, which occur when data comes in and you don't catch it. Intrinsic factors are more manageable than the first group but nonetheless they are real.

DMR: *Do customers take a holistic approach to information integrity?*
MN: We offer many independent automated information controls, and, generally speaking, customers go through an evolution that begins with a failure, something so serious that a wrong report was sent to a regulator or a customer was suddenly very unhappy. Customers find us or we find them but over time they realize this is an enterprise need. Yesterday I spoke with a customer in Ohio who now has some 35,000 controls using our products and plans to expand it significantly. These are very large organizations with extensive systems, applications and so on. We have a series of products that will allow them to view the status of the controls through the Web in a dashboard facility we call Infogix Insight. You know, 99.99 percent of the time everything is okay, otherwise these companies wouldn't be in business. But the one time it is not okay is what they are trying to avoid and our controls catch that, route the exception and put in the necessary workflow to resolve and escalate that if necessary.

DMR: *It seems we are at a turning point away from a single version of truth in one place with more federated data across channels and locations, which would seem to benefit your business model.*
MN: It is an opportunity for us because the more players you have involved in information transfer, the more complex it gets. It's not just an enterprise issue; it's an industry issue. Information is not local to enterprises; it crosses enterprises. Many of our customers have large customers of their own and they are asking us to do something to ensure there is integrity across the entities. It may still be early but we are beginning to see openness to outsourcing this aspect in the same way you outsource external auditing or other functions where you want an independent party monitoring and certifying information. I expect that to pick up as we move forward and the whole area seems to be emerging as a new industry.

> Factors that contribute to the value of information are the usefulness, usability and integrity of the information.

DMR: *It's not just integrity, but understanding the value of the whole glut of information we face.*
MN: If I may, this is a topic that is very important to me. What is happening in the information environment is very much like what is happening in our physical environment. What's happened in information can also be compared to the industrial revolution. That first revolution resulted in a lot of benefits for humanity. We produced many new things that changed our lives and livelihood. And then around 60 years ago we began to see a different crisis, an environmental crisis. We did not have an environmental science or technology or industry at the time. Today [environmental science] is a market space and knowledge space. The information revolution started some 60 years ago and it has also changed our life radically, we are producing massive amounts of information of all kinds. My prediction is that this is equally likely to create a crisis of information integrity. We don't have the science, technology, standards, products or services to deal with that today. Very likely, a new market or knowledge space will emerge. It has to emerge, otherwise we will be buried in toxic information and that is already beginning to happen. DMR