

Why Use RightWorkForce™ and Kaleid-Array™ Simulation Models?

Kaleid-Array™ simulation models are based on a logical design devised by Dr. Chester S. Labedz, Jr. during research conducted at the School of Management at Boston College. The original use of these designs was a study of prospective retirement plan strategies for a medium-sized firm, but the realm of possible application in strategic management is much broader.

We believe that the enlarged set of Kaleid-Array™ models – currently under development through a partnership between Dataleaf Technologies, Inc., and dwww.llc.com – are of significant commercial interest to “end user” organizations, and especially to those that counsel and service them. The latter firms include corporate strategy consultants, financial advisors and accountants, ERP vendors, and talent management, payroll and human resource administrative service firms.

We think the potential value of Kaleid-Array™ models is based chiefly on three properties:

- Kaleid-Array™ models can represent even complex processes in a uniquely comprehensible way.
- They are uniquely rich in detail.
- They can uniquely integrate HR, operations and finance functions.

As a result, firms can more realistically model their workforce dynamics, including user-specific productivity, competency and demographic dimensions. Kaleid-Array™ models simulate emerging future conditions as well as expected and unexpected consequences of top-down strategic interventions and bottom-up employee behaviors. Our models can integrate HR data with other functions in a self-contained simulation, or they can interact in real time with a firm’s ERP or financial software applications using ODBC.

RightWorkForce Kaleid-Array™ models can represent even complex processes in a uniquely comprehensible way.

Kaleid-Array™ models – even complex ones – are *surprisingly easy to understand*, once built. This means they are easy to validate, interesting to discuss, pleasant to advocate, convenient to critique ... and, in the end, intuitively easy to adopt. We think these characteristics considerably enhance the potential value of our RightWorkForce™ approach to problems in an organization.

This ease-of-understanding arises from the fact that that Kaleid-Array™ models are profoundly “agent based.” Employees, departments, functions, programs, even the firm itself, are “agents.” What employees do – or attempt to do – is modeled *at* the employee level. What the recruiting function does – or attempts to do – is modeled at *that* level. And so forth. There is no opaque, complex computational machinery that binds multiple levels into a single rigid framework. Straightforward, small, mechanisms – many of them – are used instead.



Of course “agent based” simulation models are increasingly familiar in fields such as Marketing; but they are virtually unknown in HR, probably because sets of identical “agents” just don’t represent a real, differentiated employee population very well. We believe the Kaleid-Array™ models are the first to deal with this problem – by encapsulating a live employee database – and by incorporating small, crucial system dynamics (continuous process) components in the models.

Kaleid-Array™ models are uniquely rich in detail.

A Kaleid-Array™ model *incorporates an entire employee population* at the beginning of every simulation. Then it propagates that same population – in full, fine-grained detail – through time.

Employees – not only the initial set, but also those who are later “hired” from a labor market – are highly differentiated “agents.” Each possesses characteristics, some of these static, others dynamic, including a birthday, a hire date, a job history, gender, race, salary, benefits, deductions, bonuses, employee account balances, and in some cases dependents. These differentiated individuals are supported through an encapsulated database mechanism which we believe is unique to RightWorkForce™.

Each individual also possesses a changing profile of firm-relevant knowledge, skills and abilities (KSAs). The match over time of the characteristics, employee motivations and KSAs which employees supply to those which the organization currently or prospectively demands (at prices acceptable to each) is fundamental to ensuring the right workforce for both today’s operations and tomorrow’s strategic plan.

ERP-based predictive models also operate on a very detailed corpus of employee data. However, in such models, an individual employee is only a “cog” in a uniform process conceived on statistical or projective grounds. Many “balancing” behavioral dynamics – consider how many times employees and employers want opposite things! – are technically impossible to capture in such models.

Kaleid-Array™ models are uniquely integrated.

Sometimes it is said that a particular predictive model is “integrated” – meaning that predictive and administrative mechanisms are linked, usually inside an ERP envelope.

When we say that Kaleid-Array™ models are integrated, we mean something quite different.

A typical Kaleid-Array™ model contains several areas – compensation programs, benefits programs, training, retention, and others – each of which contains its own set of “agents,” all of whom behave in various ways according to the container. Yet each employee “agent,” in whatever area of interest, is connected to a common, continually updated, employee record in the Kaleid-Array™ encapsulated database described above. In this way, higher-level entities within the firm (departments, programs, etc.) are massively integrated *at the employee level*, but remain essentially distinct in themselves – just as in the real world.



This unique level of integration furnishes a sound, organic basis for the interactions of training, compensation and production – a mechanism which artificial high-level connections cannot equal in simplicity or correctness.

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