

The Dandelion Principle: Redesigning Work for the Innovation Economy

LEADING YOUR
TEAM

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BY ROBERT D. AUSTIN AND THORKIL SONNE

AT ITS ANNUAL user conference in May 2013, German multinational software giant SAP AG announced plans to hire hundreds of people diagnosed with autism, with a target of having people with autism represent 1% of the company’s work force by 2020.¹ The Merriam-Webster dictionary defines autism as a developmental disorder associated with “impairment of the ability to communicate with others” and “preoccupation with repetitive activities of restricted focus.”² Companies don’t typically seek out these characteristics in new hires. In fact, the social struggles and behavioral patterns that accompany autism often make individuals on the autism spectrum unemployable.³ So why did SAP take this unusual step? As a charitable gesture? An act of corporate citizenship?

Actually, there was a strong business rationale for the decision. “We share a common belief that innovation comes from the ‘edges,’” one SAP executive stated in the company’s press release. “Only by employing people who think differently and spark innovation will SAP be prepared to handle the challenges of the 21st century.”⁴ More specifically, the company had discovered that some people with autism have abilities that are extremely

Dandelions, the authors point out, have many beneficial qualities but are considered weeds in the context of a uniform green lawn.



THE LEADING QUESTION

Can companies benefit from hiring people with autism or other cognitive or behavioral differences?

FINDINGS

- ▶ Some people with autism have abilities that are well-suited to performing detail-oriented tasks such as testing.
- ▶ By redesigning work conditions for individuals, managers can realize value that might not otherwise be available.
- ▶ In an innovation-oriented economy, it can be good business to hire people who think differently.



well-suited to performing some vital information technology tasks. The motivation was to hire people who are among the best in the world at jobs other people are not able to perform as well.

We believe this kind of thinking can be extended much further, to provide significant benefits for companies and society. SAP's move embodies an emerging management principle — we call it “the dandelion principle” — and offers an alternative way of thinking about human resources management. In some ways, it turns some of the basic tenets about how to recruit and manage people inside out.

Discovering a Gift for Software Testing

SAP's initiative was inspired by the experience of Danish consulting company Specialisterne, which was founded by one of the authors of this article (Thorkil Sonne). Specialisterne's clients have included Microsoft, Cisco, SAP and other multinationals. About 75% of its skilled employees have some form of autism spectrum disorder, which makes them well-suited to certain jobs, such as software testing, quality control and security monitoring.

It turns out that there are good reasons for this. Software testing, to take that example, is repetitive and detailed work for which most people have limited tolerance, and it needs to be done well. Software testing also tends to be individual work, requiring constant referencing back and forth between computer output and listings of the results that should have been generated by software. These job characteristics are well-aligned with the attributes of individuals with some forms of autism: an exceptional ability to focus and pay attention to detail, and finding comfort in repetitive activities. What's more, many individuals with autism spectrum disorders struggle with social interaction and perform well on solitary tasks. As Torben Sorensen, a former Specialisterne consultant, explained:

I have an ability to see when something deviates. It kind of leaps to the eye. . . . I have a keen eye for errors. I completed 90% of my teacher's education . . . but I wasn't good at . . . making contact with [students]. I like working here. . . . Here I can just concentrate on my work without being considered antisocial.⁵

Of course, not all people with autism have the skills and motivation needed to do well in these jobs; among the population of individuals with autism spectrum disorders, there is a wide range of abilities. Effective assessment and training are critical to understanding what employees can do and getting them into a comfort zone where they can excel.

From the beginning, Specialisterne (which means “the specialists”) has maintained that it competes based on the talent of its people, not by drawing on the good intentions of others. (See “The Origins of Specialisterne.”) Specialisterne is not alone in its experience using specialized talent. Inspired in part by Specialisterne's example, other organizations including Passwerk in Belgium, Auticon in Germany and Aspiritech in the United States have initiated similar programs. Such companies are discovering important but unexpected benefits. For example, some client managers who supervise Specialisterne employees have said that learning to design a work environment to maximize the effectiveness of people with autism — and learning to adapt a management style to better fit an individual employee — helps them achieve better results from a broad range of employees. In other words, thinking about work environments from the employees' perspective can provide managers with a tool that can generate impact in many parts of an organization.

Understanding the Dandelion Metaphor

The dandelion might seem an odd choice for a workplace metaphor. To many people, the dandelion is a nuisance, a weed that can spoil a beautiful green lawn. But the dandelion has many positive characteristics. The roots can be roasted to make a coffee substitute. The leaves are edible and can be used in soups; they are excellent sources of calcium, potassium, iron and manganese and full of vitamins A, C, E, K, riboflavin and beta-carotene. Researchers in Canada are even studying whether an extract from dandelion roots could have cancer-combating potential.⁶

Given its inherent positive qualities, you might wonder why the dandelion is considered a weed. The answer has to do with *context*: Within a carefully maintained lawn, the yellow dandelion, with its jagged leaves and long stalk, is out of place. However, in

Sometimes these peculiarities are attitudes, habits or an unwillingness to put aside nonwork-related interests. Writer Bruce Sterling has provided a rallying cry for the unapologetically difficult yet talented nerd:

Forget trying to pass for normal. Follow your geekdom. Embrace your nerditude. In the immortal words of Lafcadio Hearn, a geek of incredible obscurity whose work is still in print after a hundred years, 'Woo the muse of the odd'... You may be a geek. You may have geek written all over you. You should aim to be one geek they'll never forget.... Get sophisticatedly, thoroughly weird, and don't do it halfway. Put every ounce of horsepower you have behind it.... Don't become a well-rounded person. Well-rounded people are smooth and dull. Become a thoroughly spiky person. Grow spikes from every angle. Stick in their throats like a pufferfish.¹⁰

On a panel about managing talent, the president of an information technology consulting company in the Seattle area once related the following story:

One of my star players ... wants to be a musician. He quit [an earlier job with a well-known company, where he had made a fortune] and now he's working for me 20 to 30 hours a week. And what a deal I have! I've got to be willing to let this guy go on the road, disappear for a couple of weeks at a time, go record CDs. But he

does great work, so ... you know, it's an opportunity.... I'm definitely okay with it.¹¹

Similarly, a software company CEO told us of her discovery, while struggling to hit a make-or-break deadline, that her top developer was devoting half his work time to political activism to change software patent laws. When she stumbled across this, her developer didn't try to hide it. He thought his distribution of effort completely reasonable. She needed his talents, especially in the situation they were in, so persuasion was her only option.

Many managers in the tech industry, faced with talent in less-than-well-rounded or less-than-fully cooperative packages, have adjusted. They've implemented a version of the dandelion principle already, out of necessity. They have adjusted to the eccentricities of highly talented tech workers — and have sometimes found additional benefits to this approach. As the software company CEO pointed out to us, the different perspectives that come with different people can be very important to an innovation-based business:

When [your business shifts] you'll often find the seeds for the shift in that group, because they're not really paying attention to you all along anyway. They were worried about some way-out-there trend. They'll see it and there will be something there. [The key to] how to manage change is in that group of folks you don't have a lot of control over.

This argues for adjusting work conditions to further activate the foresight and talents of people who “think differently.” Rather than seeing this kind of adjusting as an exception, we should look for other opportunities for adjustment, even for employees who aren't especially eccentric. If by redesigning work conditions for individuals you can significantly increase the amount of value your people create, that might, depending on your business, be worth more than the cost of the changes. (See “About the Research.”)

Redesigning Work for the Innovation-Based Economy

One reason companies have begun to move to a different kind of people management follows from a

ABOUT THE RESEARCH

This paper is the outgrowth of two streams of activity: (1) a multiyear research project investigating the principles, processes and practices of innovative organizations, especially those in creative and technology industries; and (2) the evolving practices and learning from the pioneering work involving people with autism at Specialisterne.

The broad project has employed a multiphase research design intended to generate new and refined management frameworks to enhance our understanding of innovation within organizations. The project began with loosely structured fieldwork within a handful of companies, then progressed to more structured data gathering in more than 30 cases. Cases were chosen to range as widely as possible across dimensions that had emerged as interesting in early fieldwork in hopes of facilitating insight-generating comparisons. The study has addressed issues of individual mastery in value creation, the dependence of some companies on specially talented individuals, the management of unusual or idiosyncratic talents and many other related issues.

The key insights in this paper arise from in-depth analysis of the Specialisterne case, augmented by the experiences of the company's founder. Findings for this case have been subjected to cross-case comparisons, which increase our confidence in the applicability of our conclusions; although this study was designed to generate ideas and frameworks, it was not designed to provide “proof” of its conclusions.

A NEW APPROACH TO MANAGING PEOPLE

Traditional HR management and management according to the dandelion principle approach differ in many critical areas — including approaches to work design, hiring and employee development.

	TRADITIONAL HR APPROACH	DANDELION PRINCIPLE APPROACH
Work Design	<ul style="list-style-type: none"> • Derive business needs from stable strategy and plans. • Design jobs by determining the tasks a given job requires; translate these into job descriptions of stable organizational roles. 	<ul style="list-style-type: none"> • Design jobs to maximize potential for particular individuals to create value. • Customize project roles so they “work” for short-term needs but can evolve as needs change.
Recruitment and Selection	<p>Template-based:</p> <ul style="list-style-type: none"> • Seek, select and hire candidates who score well on checklists that are derived from job descriptions. 	<p>Variance-widening:</p> <ul style="list-style-type: none"> • Hire people with “differences” (abilities or qualities the company doesn’t have). • Hire unusual people; assess their skills carefully, so you know what you’ve got. • Keep the connection to short-term job needs loose; assume jobs will evolve. • Candidates need not be “well-rounded”; depth in one area can offset shortfalls in others.
Training and Development	<p>Assignment-based:</p> <ul style="list-style-type: none"> • Train to provide skills needed for current job. • Offer development education based on forecasts of future needs and organizational intentions. • Focus on intended, foreseeable value. 	<p>Individual-based:</p> <ul style="list-style-type: none"> • Train to bring out and develop exceptional abilities, even those not related to current or foreseeable assignments. • Build up relevant capabilities and readiness to capture serendipitous value.

shift that’s under way in how value gets created. In the industrial economy, companies could often win by operating more efficiently than rivals. Today, that’s no longer enough. Faced with lower-cost competition from developing countries, established companies also need to innovate, to offer products that are better than what’s available from competitors.

But innovation calls for organizational capabilities different than efficiency. Efficiency requires getting people and machines to mesh more smoothly; the emphasis is on parts fitting in and reducing variation around averages. Innovation, by contrast, involves finding new and better ideas and using new processes. Managing innovation is less about averages and more about understanding *outliers*. The emphasis is on increasing interesting variation, then identifying value in some of the variants.

That isn’t easy. People and organizations form habits, which can make it hard to create sufficiently original products and services. Habits also make it hard to see value in new variants; the easiest kind of value to see is the kind you’re accustomed to seeing. That’s why innovative companies can benefit from people from “the edges” who have different perspectives:

individuals with different cognitive or behavioral inclinations who do and see things differently. If industrial competition was about managing averages, innovation-based competition is about harvesting the benefits of valuable outliers.

Traditionally, human resources management has been geared to enabling companies to execute their strategies and plans. But in an innovation economy, things need to be more fluid. Business strategy needs to pick up on changes in the business environment — and so must human resources. Indeed, organizations including Zappos, the online retailer, are experimenting with less structure and attempting to organize around temporary projects as opposed to traditional functional hierarchies.¹² As company strategies shift, many job roles can’t be contained in boxes on static organizational charts. (See “A New Approach to Managing People.”)

How should companies respond? Traditional HR practices involved starting with fixed strategies, deriving job requirements, refining these into descriptions, then hiring and developing people to fit the roles. The dandelion principle calls for hiring people with potentially differentiating skills and

talents, assessing those skills carefully so you understand them, organizing the work context around the people to maximize their ability to create value, and developing their inherent talents to enlarge the potential for future, unanticipated forms of value creation. Managers must still make judgments about which skills and talents can create value, but the judgments are looser; there is no illusion about being able to derive precise job requirements from stable strategies. When it's difficult to anticipate the biggest opportunities and problems, people assets — specifically, people who approach problems from different perspectives — can help you adapt.

The Opportunities for Untapped Talent

Google's online dictionary defines a resource as “a stock or supply of money, materials, staff, and other assets that can be drawn on by a person or organization in order to function effectively.” The phrase “human resources” suggests that there is valuable “human stuff” that happens to be stored in containers called “people.” This is like referring to the contents of a famous art museum as “paint resources.” In the innovation economy, such terminology is counterproductive.

In this article, we have suggested the direction in which change should move. The dandelion principle argues for taking on larger challenges. The world contains many types of underutilized talent — not just people with cognitive, developmental or behavioral differences, but also people who lack access to opportunity for other reasons. Boys in rural India might be headed for lives as subsistence farmers, following in the footsteps of their fathers. Girls in sub-Saharan Africa might be headed for lives of poverty and disease. But if we can adjust the overall contexts of these boys' and girls' lives (for example, by providing access to education and technology), they may be able to do something totally different, and the resulting benefits could flow in multiple directions.

In the face of many challenges, businesses shouldn't be resigned to “leaving talent on the table.” Businesses can't afford to set aside people who are different, especially in a world afflicted with serious difficulties, where we need different perspectives to

help us innovate. The examples of Specialisterne and SAP offer a hint of what's possible.

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