WHITE PAPER

Give Your Leaders A Developmental Edge





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Contents

Executive Summary	
Three Dimensions of Self	
How Digitally Enabled Assessments Add Value	6
A Digital Leader Story	7
Discovering What Works	8
Social Media Analytics	8
Leader-Driven Pulse Survey Tool	10
Video-Based Coaching Tools	10
Imagining the Future	11
Finding Your Doppelganger	11
The Stress Factor	12
A Nudge in the Right Direction	13
Caution Ahead	
Overemphasis on What We Can Measure	15
Conclusion	16
About the Authors	17



Executive Summary

"To know thyself is the beginning of wisdom."

The quote has been attributed to both Socrates and Aristotle, but regardless of the source, the words are still relevant today. Understanding ourselves—our strengths, shortcomings, and why we do the things we do—is the starting point for personal growth and accelerating leader development.

For decades, we've assessed leaders using personality tests, psychological inventories, 360 surveys, and evaluations by trained observers. These tools are immensely helpful in giving leaders critical insights about themselves and the impact they have on others and on the organization as a whole. Thanks to the digital revolution, human resource leaders now have an opportunity to take assessment to the next level by:

- Providing leaders with new feedback sources to enhance their decision-making about what leadership areas to target for development.
- Giving leaders real-time feedback to enhance their ability to lead.
- Offering leaders more personalized guidance with a clearer picture of their development journey.

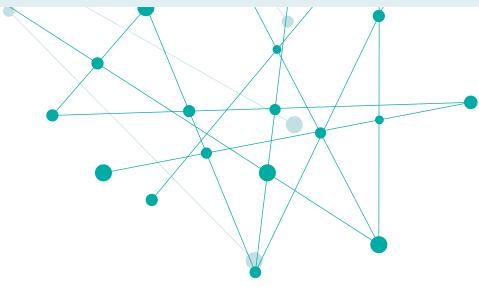
Technologies that leaders use to enrich their personal lives such as immersive games and simulations, intelligent personal assistants, social networking sites, and biometric monitoring are now helping leaders get a deeper look at who they are, including how they show up in the digital workplace. Within seconds, we can assess personality based on social media posts. Wearable devices monitor our stress level around the clock. Instead of waiting for the next employee survey, new tools let leaders ask for and receive feedback as often as needed.



Emerging digital assessments are a welcome addition to the leadership development toolkit. Organizations that take advantage of these new approaches are giving their leaders valuable insights they can use to lead their teams more effectively. But it would be a mistake to assume these new offerings will replace traditional approaches that rely on humans rating themselves and others. Rather, these digital tools help the leader more quickly focus on development areas that really matter. This means that leaders have more time for the actual development work—trying out new leadership skills, connecting with peers and mentors about new approaches, and reflecting on what is working and what is not. These digital tools also benefit leaders because they provide more real-time feedback on-demand—reinforcing what new approaches are working and suggesting when it may be worth tweaking or changing up a new way of leading.

Leaders need feedback from both traditional and new assessment tools to meet their development goals. We believe human input, combined with digital data, can help leaders transform their work and their lives.

It's the developmental edge many of our leaders want and need today.







Three Dimensions of Self

Becoming more self-aware is a critical part of every leader's development. Individuals who see themselves similarly to how others see them on a 360-degree assessment are viewed as higher performing leaders (Fleenor, Smither, Atwater, Braddy, & Sturm, 2010).

But what do we mean by "the self," and what tools can we use to examine it more closely? To answer that question, it helps to "peel the onion," you might say, for a closer look.

The inner self describes who we are as individuals (internal mindsets, motivations, and feelings) and how we're functioning (emotions, stress levels, confidence).

- Biometric data from wearables can reveal how aspects of the inner self affect our decisions and behavior.
- Computer-based assessments using video data analyze our facial expressions, voice, and language to see what's beneath the surface.
- Our digital footprint, derived from social media posts, emails, web browsing history, and more can reveal a great deal about our internal world.



The outer self is how we present ourselves to the outside world through observable words and actions.

- When we're around others, sociometric badges equipped with sensors track our movement, speech volume, tone of voice, and proximity to other badges.
- Our digital footprint also gives us a clear picture of how we want others to see us.

Others' experience of self is how other people experience us.

- The traditional method for capturing this data is a 360-degree assessment, and it continues to be a dependable source for leaders.
- Newer tools like pulse surveys supplement this data by allowing leaders to seek out and receive input from others anytime, anywhere.

Having input from multiple sources synthesized by high-powered computing makes it faster—and easier—to pinpoint the two or three areas that will make the biggest impact on a leader's performance. It's like physicians who collect information from different sources to diagnose a patient. They may have the results from lab tests (objective) and the symptoms in the patient's own words (subjective). Leaders do the same when they get a wider range of input that results in a sharper focus, or a clearer diagnosis, for what their development priorities should be.

The table on the next page includes more details about tools that can be used to assess each dimension of the self.

Dimensions of Self	Inner Self Who we are as individuals and how we're functioning	Outer Self How we present ourselves to the outside world	Others' Perception of Self How other people experience us
Indicators	Mindsets Preferences Motivations Emotions Stress levels Confidence	Words Actions Interactions	Behavior and its impact Strengths and weaknesses Changes and improvements
Traditional Methods	Individual completes a survey answering questions related to specific inner- quality dimensions	Individual is observed and rated by trained professionals Individual observes self via recorded video	360-degree feedback Coworker ratings of an individual leader's change Behavior-based feedback that is delivered face to face, such as CCL's Situation, Behavior, Impact (SBI) model
New Methods	Physiological wearables, e.g., FitBit Digital Footprint, including social media posts, emails written, and web browsing history Computer-based assessment of video files including language, voice, and facial expression	Sociometric badges Digital Footprint, including social media posts, emails written, and web browsing history Computer-based assessment of video files including language, voice, and facial expressions	User-driven feedback tools enabling increased real- time feedback



How Digitally Enabled Assessments Add Value

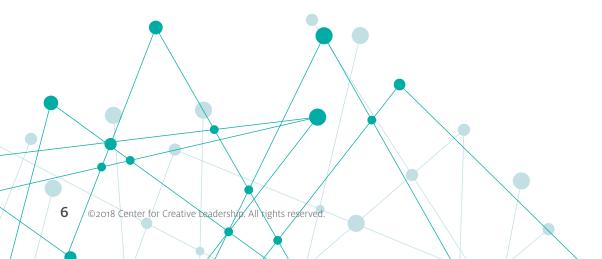
Digital technologies give leaders new ways to learn about themselves and how they can be more effective.

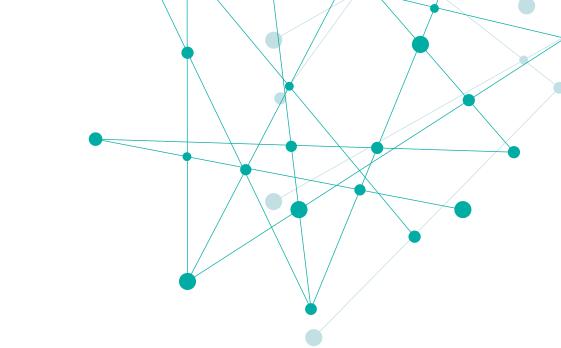
Our ability to analyze a variety of data from and about leaders (emails, social media, customer feedback, and more) is a good example. We couldn't capture and analyze this data before because of limitations in cloud computing. Now, this wider lens helps leaders understand why they think, feel, and act the way they do across situations and with certain people.

Newer, digitally enabled tools can also make the development process more efficient, which means leaders can move from data to insight to action faster. By letting machines do what they do best, like identifying patterns in data, leaders have more time for the actual development work. Organizations also benefit because faster tools allow them to provide more employees with valuable feedback.

Once leaders begin their development work, new tools can help them identify what's working and what's not. Biometric monitoring assesses characteristics, such as resiliency, that affect a leader's behavior. We can use this data to find out if a specific developmental assignment helps or hurts a leader. Then HR teams can create experiences that stretch leader capabilities and result in the most positive change over time.

We can also use digital tools to prepare our leaders for the future. Video-based coaching tools can teach people how to lead in today's more distributed work environment—or "being there when you're not there," as futurist Bob Johansen points out in Thriving in a Future of Extreme Disruption and Distributed Everything. We expect more leaders will take advantage of these tools to improve their communication skills in a virtual setting.







A Digital Leader Story

Let's take a look at how a new manager we'll call Joe might use traditional and digitally enabled assessment tools to improve his performance.

Joe is a driven, high achiever who values on-the-job learning. He uses digital devices constantly to stay connected. After progressing quickly through the company's new manager program, Joe finds himself positioned for a new assignment. Even so, Joe is surprised to learn that his peers rated him below average on collaboration in a 360 assessment. He had low scores on statements like, "Gets things done without creating unnecessary adversarial relationships." Joe rated himself high on agreeableness in a personality test, which should indicate strong collaboration skills.

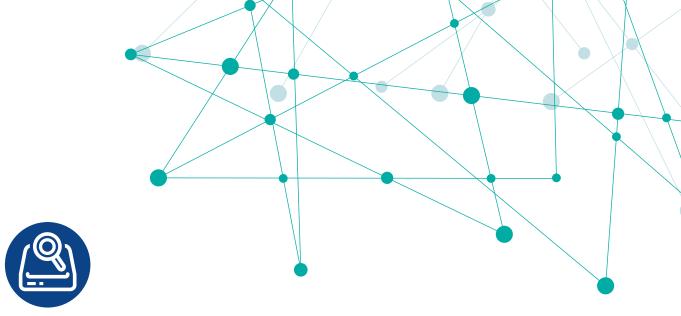
Who's right? We can use other assessment tools to find out. Then Joe can create a development plan that works for him.

A second personality assessment derived from Joe's Facebook posts returned a low score on agreeableness, which was more in line with how his peers see him. With feedback from both the 360 and social media assessments, Joe conceded that he needed help with collaboration.

Now that Joe has a clear development goal, he can use tools like pulse surveys to check in with this same peer group on a set schedule. He could also ask for immediate feedback after a team meeting.

If Joe still needs help after several weeks, these tools can provide additional insights and opportunities to practice new approaches:

- A serious video game that gives participants a score on working collaboratively.
- A text analysis of emails or other writing. A less collaborative leader is more likely to write with a negative sentiment or tone than one who is rated higher on this attribute.
- · A video-based coaching tool that allows users to practice communicating with more collaborative language. Peers can watch the video and rate the presenter, or the leader can receive a machine-based assessment.



Discovering What Works

Which of the new assessment tools will help leaders increase self-awareness and achieve their goals? The Center for Creative Leadership (CCL®) is conducting several pilot studies to find out. Here's more about three of them.



Social Media Analytics

Thanks to IBM's Watson, personality profiles derived from an individual's social media content are just as accurate as a self-reporting questionnaire. Can we predict leader behavior by analyzing this same data?

CCL is examining how a leader's social footprint might be used to assess key leadership competencies such as building collaborative relationships and strategic thinking (see Young & Downs, 2017). We're using our Digital Leader website to collect and analyze Facebook and Twitter content as well as writing samples from thousands of leaders. Any data we have received is from leaders who have personally consented to let us analyze their data for research purposes only. In exchange, participants receive a free personality test with immediate insights they can apply to their work and personal lives.

By analyzing this data, we expect to find answers to questions like these:

- How do different leaders express themselves on social media?
- How do these differences affect a leader's chance for success?

In the future, we will collect leader data from other digital sources, including email, video presentations, customer comments, and employee engagement surveys. The goal is to provide leaders with a clearer picture of what a digital footprint looks like for a successful leader compared to one who's derailing. Leaders would know where to focus their efforts, and HR teams could create development experiences that stretch a leader's capabilities and result in more positive change over time.



Traditional assessments have already uncovered valuable insights about leaders, including key competencies required to be successful (see Young, Gentry, Bendixen, 2016). By gathering more real-time, continuous digital data, we could answer broader questions like these with greater precision:

- What does the leader's learning journey look like over time? When do the dips and spikes occur?
- What is holding leaders back from applying new learning on the job? How are they addressing obstacles like lack of boss support or an organizational culture that doesn't support learning and development?
- What is helping leaders succeed (such as access to mentors or executive sponsors)? How can we share those insights to help other leaders?
- What development experiences work best for leaders in a specific type of organization or industry?

Collecting ongoing data will also help us understand how leaders are applying on-thejob learning. HR teams could then provide personalized recommendations, tips, or tools in real time.

As we explore what it means to be an effective leader in the digital age, participants in CCL's training programs are using the Digital Leader site to see how they show up in the digital world versus face to face when leading teams. Despite changing how we develop leaders with digital tools, a key constant for CCL in this new digital age is our commitment to make sure all personal data is safe and secure. Over the last several decades, more than a million leaders have trusted CCL to keep their personal data secure. This commitment continues today with our adherence to the strictest of data privacy and security guidelines including full compliance with the EU's General Data Protection Regulation (GDPR). We communicate these guidelines to all CCL employees, and they are enforced within our organization.



Leader-Driven Pulse Survey Tool

Changing behavior is hard work, but we know that immediate and high-quality feedback can accelerate a leader's development. In a recent CCL study (see <u>Gentry & Young, 2017</u>), we also found that leaders want more feedback (both positive and negative) than they're currently getting.

We're testing a a leader-driven pulse survey tool that puts leaders in charge of requesting feedback on important leader goals and tracking their progress. Our hypothesis is that people who use this tool will see a bigger impact on their performance than those who don't use it.

Once the feedback schedule is set, the technology platform nudges the leader to send out pulses. The nudging feature should increase the odds that busy leaders will make the time to ask for and receive ongoing feedback. Leaders can request feedback anytime with customized questions such as, "Did I keep us on track in today's meeting?"

Quick, on-demand assessment tools also address the "stickiness" problem with leadership training programs. Too often, leaders are excited about what they've learned and are ready to make changes, but they still return to their old patterns. Asking for and receiving regular feedback can reinforce what they learned in the classroom and keep them on track.

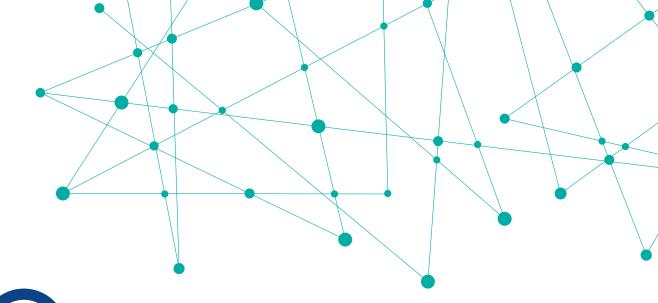


Video-based Coaching Tools

In the early days of teleconferencing, people assumed that meeting face-to-face was the ideal setting for workplace collaboration. Replicating that in-person experience would be the goal for the future. With advances in video technology, however, we see how video-based meetings and presentations might offer greater insights to both the presenter and receiver—beyond what they experience in person.

We're testing several video tools that allow leaders to get feedback on how well they communicate their ideas. In addition to replaying the recording for a self-evaluation, users can receive instant feedback from the tool itself and post-presentation feedback from other people to help them pinpoint areas for improvement. The machine gives instant feedback on areas like pace, pitch variability, and total pauses. Leaders can also invite peers to view the video and rate their words, tone, and body language.

In our initial pilot, we want to know if leaders who use the video-based coaching tool see an impact on their communication skills, both verbal and nonverbal, compared to those who don't use it.





Imagining the Future

These pilots are just the beginning. Join us in imagining new ways to harness emerging technology in the service of leadership development.

Finding Your Doppelganger

We use assessment tools because they help people change their behavior. Now, advances in data analytics let us zoom in on a subset of big data to get a clearer understanding of how humans function.

In 2003, statistician Nate Silver used such a doppelganger search to help the Boston Red Sox baseball team make an important decision. The issue was designated hitter David Ortiz. Should the team renew his contract or let him go?

Silver and his staff searched a database of 18,000 men who had played in the Major Leagues and zeroed in on the ones most like Ortiz—similar in height and weight, home run average, position played, and more. Then they narrowed the search to find 20 players most like Ortiz at different points in their careers.

Even though conventional wisdom pointed to releasing Ortiz, the doppelganger approach offered new information. Several of the players who came up in the final search had excelled well beyond their expected career peak. The Red Sox renewed Ortiz's contract after seeing this analysis, and he was among the league's top players for several more years before retiring in 2016.

How might HR teams apply doppelganger searches to advance leadership development? With a large enough database, they could identify a subset of people most like a single leader similar in age, profession, education, and career path, for example. The results could reveal patterns across the smaller group and identify what makes them succeed or derail.

The Stress Factor

The link between stress and serious health problems is well-documented. At a minimum, it affects our sleep and makes us more distracted. If we don't address the issue, we can suffer burnout or worse—including heart attacks and strokes.

According to the American Psychological Association, work is a major cause of stress for two-thirds of people in the United States. But stress doesn't just happen to us; our perceptions of a situation often lead to the stress response. In other words, we have some degree of control over how it affects us.

Recognizing when we're stressed is the first step in minimizing its effects, and that's where wearable devices like Fitbit can help. They collect data on our heart rate, sleep patterns, and physical activity, which are all indicators of stress level. Seeing this hard data is often the impetus people need to change their lifestyle.

More advanced wearable devices show other physiological changes such as body temperature. We know that stress causes our heart rate to increase and our skin temperature to drop. We also perspire more—as in sweaty palms before giving a presentation. If you've had a negative interaction with a coworker, does being in a meeting with that person trigger stress, even if it's weeks after the initial encounter? A wearable device might give you the answer.

In the future, organizations may want to use these types of monitors to help their leaders track their reactions to specific events and situations. Several of our CCL colleagues are involved in work to understand the role of stress in leadership development (Ruderman, Clerkin, & Connolly, 2014) and teach leaders how to deal with it (Petrie, 2017).

The average US worker now spends 25% of their day reading or answering emails.

More than 80% of all companies rate their business "highly complex" or "complex" for employees.

Fewer than 16% of companies have a program to "simplify work" or help employees deal with stress

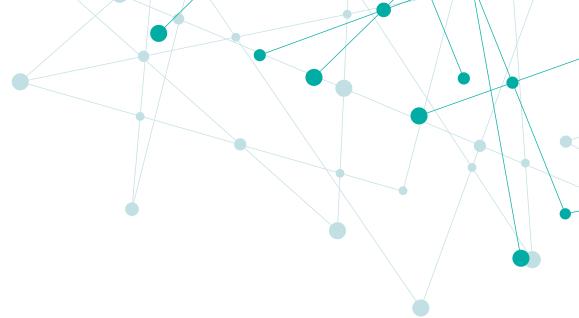
The average mobile phone user checks their device **150 times a day**.

40% of the US population believes it is impossible to succeed at work and have a balanced family life.

The average US worker works 47 hours and 49% work 50 hours or more per week, with 20% at 60+ hours per week.

Reference:

Bersin, J. Closing Keynote: Digital HR: A New Architecture for Technology [PDF document]. Retrieved from 2017 HR Tech Conference site: http://s23.azzinc.net/clients/lrp/hrtechnologyconference2017/Public/SpeakerDetails.aspx?FromPage=Speakers.aspx&ContactID=568.



A Nudge in the Right Direction

It's human nature to want instant gratification, especially when it comes to what we eat and how we spend our money. But new research shows giving people a nudge can increase the likelihood they'll make a better choice.

The approach stems from a relatively new field known as behavioral economics, which looks at the psychology behind our decision making. In 2017, Richard Thaler at the University of Chicago Booth School of Business won the Nobel Prize for his pioneering work in the field.

What are nudges, exactly? An email reminder of the annual benefits enrollment is one example. Some organizations also deliver nudges through smartphone apps to help reduce absenteeism and increase productivity.

The potential downside of these nudges, especially for leaders with little time to spare, is digital overload. But what if our digital devices could become a more natural, seamless extension of ourselves? Sensors we wear and digital applications we use would augment our experience of the world in non-disruptive ways and recommend actions that are consistent with our goals.

While they may seem futuristic today, consider how these tools could be assimilated into our normal routine to change our decisions or mood:

- Wearables help adjust our mood by releasing a pleasant smell such as vanilla when we're anxious, or a sharp scent like peppermint when we need to stay alert.
- A chatbot for executives who have an abrasive communication style offers tips on what to say and when to speak up during meetings.
- A social robot who reminds us to use our morning hours for more complex tasks instead of replying to email.

The key is reminding people of their goals at the point of making a decision. Then they're more likely to take positive action.



Caution Ahead

New technologies can be seductive—the latest shiny new thing. Before we adopt any new approach to leader assessment, we need to ask these questions:

- Will it give leaders new insights about themselves beyond what we're currently doing?
- Does it provide a comparable (or better) assessment than traditional tools?
- Is it faster, allowing leaders to focus more time on development activities?
- Will ignoring the innovation deprive leaders of the chance to gain new insights?

We also need to consider these issues:

Information overload

We all have a limited number of hours in the day. Assessment tools should enhance the learning process, not give leaders one more thing to do.

Confidentiality

People expect their personal data to be kept confidential. With wearables, for example, companies need to address privacy concerns about the biometric data generated from the devices.

Culture

Work cultures vary widely across industries and geography. Will employees agree to have their social media data used for a personality assessment?

Integration

Organizations need to consider how these tools will be integrated (if at all) into traditional processes like performance reviews and employee engagement surveys.

Clear purpose

Data, like anything in society, can be used for good or evil. With new assessment tools, we need to make sure it's only being used to help leaders improve and not in a discriminatory manner.

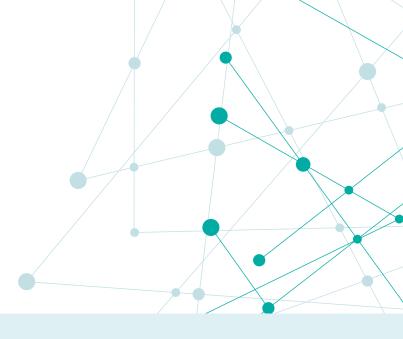
Validity

Are the assessments measuring what we think they are? Does knowing the number of steps you take in a day help you meet your health goals?

Lack bias

Was the assessment developed by an expert who made sure that it only measures factors related to leadership (i.e., inner self, outer self, others' perception of self)? Does the vendor show that assessment scores do not depend on one's age, gender, or membership in other protected classes?

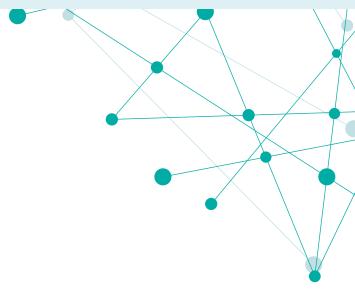
Addressing these concerns up front will increase the chance that these new tools will be accepted—and ultimately help leaders achieve their goals.



Overemphasis on What We Can Measure

While big data analytics can help advance leader development, it's a mistake to think we can throw a quantified answer at every problem. Numbers can be seductive, causing us to lose sight of the questions we set out to answer.

- Facebook has realized that asking users open-ended questions provides a more accurate picture of how people use the site than just counting likes and clicks.
- Multiple-choice tests don't measure things like a student's curiosity or critical thinking skills.
- A study by the Bill and Melinda Gates Foundation found that combining test scores with feedback from traditional classroom monitoring worked best for assessing teacher performance.







Leader assessment tools are designed to give people new information about themselves. It's like putting a mirror in front of them that shows what's working

and what's not.

When organizations use digital tools to build on the insights traditional assessments offer, they're giving their leaders the clearest mirror yet. They can then deliver personalized interventions that will have a bigger impact on performance.

The ultimate goal of any leadership development effort is to have a positive impact on the leader, the work team, and the organization as a whole. With today's new assessment tools—and more on the horizon—HR leaders are in an excellent position to make this goal a reality.

If we've learned anything from the digital revolution, it's that change is inevitable. We believe those who embrace new technologies for leader assessment will be the clear winners.

About the Authors

Stephen F. Young, PhD, is a senior research scientist at the Center for Creative Leadership (CCL®) who uses data science to help leaders and organizations increase their effectiveness. Steve previously worked with Design Interactive as principal investigator and technical lead for several R&D contracts for the US Department of Defense and Department of Homeland Security. In his current role with CCL, he provides employee engagement solutions (E4) that help accelerate the return on leadership development investments. He is also the project manager for a CCL research project called the Future of Leader Assessment that is focused on learning how three key trends (big data and analytics, virtual coaching tools, and user-driven feedback tools) can enhance assessment for development. Steve has a BA in psychology and political science from the University of Connecticut. He also received an MS and a PhD in industrial/organizational psychology from Florida Institute of Technology. You can follow Steve on Twitter: @DataForLeaders.

Holly Downs is a senior research and evaluation faculty member at CCL and principal investigator for CCL's Digital Leadership Research Project. Her research and evaluation work emphasizes investigating programs delivered and digital tools used in traditional, hybrid, and digital learning environments to myriad audiences. She earned a BS in education from Eastern Illinois University, an MEd and a PhD with a dual emphasis in technology and evaluation and educational psychology from the University of Illinois at Urbana-Champaign.

Cindy McCauley is a senior fellow at CCL. She designs and manages R&D projects, coaches actionlearning teams, writes for multiple audiences, and is a frequent speaker at professional conferences. As a result of her research and applied work, she is an advocate for using on-the-job experience as a central leader development strategy, for seeing leadership as a product of the collective, and for integrating constructive-developmental theories of human growth into leader development practice. Cindy codeveloped two of CCL's assessment tools, Benchmarks and the Job Challenge Profile, and coedited three books for talent development professionals: The Center for Creative Leadership Handbook of Leadership Development (Jossey-Bass, 2010), Experience-Driven Leader Development (Wiley, 2013), and Using Experience to Develop Leadership Talent, (Jossey-Bass, 2014). Her most recent book, Change Now! Five Steps to Better Leadership (CCL, 2014) focuses on crafting and enacting development plans.

Kris Downing is vice president, commercialization and innovation at CCL. Kris and her team implement strategic innovation and product development initiatives across the organization. She ensures that CCL's pipeline of products, services, and experiences are delivering exceptional value for the leaders that CCL serves. Kris has a BS in marketing from Indiana State University and an MBA from Wake Forest University.

Joseph Press, PhD, is the global innovator and strategic advisor to CCL's president and CEO. Collaborating with leadership across CCL globally, he champions innovation, digital transformation, and creative leadership with clients. Joseph brings over 16 years' experience as an innovation and digital transformation consultant. As the director of Deloitte Digital Switzerland, he worked with global clients on digital transformation and innovation initiatives to achieve business results and accelerate organizational evolution. Joseph completed his MA in architectural studies and PhD in design technology at MIT.

To learn more about this topic or the Center for Creative Leadership's programs and products, please contact our Client Services team.

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