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DIRIGO



# Maine's own Innovation GURU

**Doug Hall**—inventor, author, TV celebrity, consultant to corporate giants, and Arctic explorer—is out to do something really big this time: He plans to make Maine No. 1 in innovation. BY TORI BRITTON

**I**f you have never seen Doug Hall live, in action, this is a warning: Words and pictures alone cannot give a true taste of the Doug Hall experience. Count this as a mere appetizer.

Hall's methods—assembled while he was on the new products team at Proctor & Gamble and fully-cooked when he opened his famous idea farm, Eureka! Ranch—are not as wild as they once were. Hall says businesspeople are too uptight these days to tolerate too much fun, but he is still out to get your attention.

At a recent innovation engineering workshop, held at Sugarloaf, Hall demonstrated “meaningfully uniqueness” by juggling three green apples. First, he took a bite out of each one before he tossed it, chewing and swallowing like crazy. Impressive. Hall then demonstrated a truly innovative way to do the trick—bite and toss, but let the apple drizzle out of your mouth like a rabid dog. Now *that's* a juggling trick.

Doug Hall has a central idea for those he teaches, be they corporate moguls, UMaine undergrads, or small business owners: The only endeavor with a chance for real success is something that is meaningfully unique. He'll teach you how to communicate that uniqueness, and commercialize it, but if your product or service is not meaningfully unique—in other words, innovative—you might as well hang it up.

This would be hard advice to take from some starry-eyed guru, but Doug Hall is nothing of the kind. The Portland-born UMaine alum has been an entrepreneur since age 12, has made millions, and still works a punishing schedule. He also loves Maine, and has made a 10-year commitment to help make Maine No. 1 in innovation-driven economic development—and he's not charging a dime for his services. That's a man worth listening to.



## Doug Hall

*Innovation Engineer*

Born in Portland, January 17, 1959

Doug Hall is founder of Eureka! Ranch, a consulting company known for generating breakthrough ideas. Hall graduated from the University of Maine, Orono, with a degree in chemical engineering and was soon hired by Proctor & Gamble, becoming one of its most prolific product developers. He became a household celebrity as a judge on TV's *American Inventor*, wrote the business classic *Jump Start Your Business Brain*, among other books, and is a key force behind the creation and ongoing development of UMaine's Foster Center for Student Innovation. He divides his time between Prince Edward Island, Ohio, and Maine.

CREATE

**BEFORE READING** Doug Hall's thoughts and recollections in this interview, another warning is in order: This man is confident and passionate, but he's also humble. Doug Hall has had a great life and he knows it, and relates the tale with joy and humor, but without ego—almost as if he were telling the tale of someone else's wild ride.

**Any one of your hats—inventor, business owner, TV celebrity, author, advisor to business giants—is worthy of an article. But an entrepreneur at 12 selling juggling kits is intriguing. Was this in Portland?**

It was Nashua; the family had moved to New Hampshire. I went to Irwin's Plastics Factory and I bought 600 balls and 600 rings and wrote up instructions; then I went to Almy's Department Store at the Nashua Mall and convinced them that if I did magic at the end of the mall over holiday weekends, I could get people to come toward their store. The magic words were "Almy's Salmys." So I did magic and juggling, and sold the kits, and from there I just kept reinvesting.

**You went to UMaine and studied chemical engineering. What were you like then?**

Not a lot different than I am today. I was very entrepreneurial, doing magic and juggling there, too. And I had a business, Campus Promotions International. I ended up with six college campuses where I had people selling T-shirts, beer mugs, you name it. I remember selling the bookstore this mason jar. I put, "Handle with care, UMO beer," and beer was crossed out and I wrote, "bear," and had a little bear inside the mason jar.

I think they sold, I don't know, a couple thousand of them.

**How were your grades?**

They were really good until my junior year. I remember when I flunked physical chemistry and my dad said, "So how is your business?" I said, "Dad, I doubled my business!" He said, "Well, I'm glad you at least got something out of this semester."

The joke when I did the [2008 UMaine, Orono] commencement speech was, "For those of you who have high grades, congratulations, and to the rest of you, you could end up like me, a two-point-something speaking at graduation."

**Your GPA apparently didn't concern the people at Proctor & Gamble. Did you work there immediately after graduation?**

The summer before, I worked as an engineer in Mehoopany, Pennsylvania, in the pulp mill. We had to come up with a way to chill this liquid that we were going to test, and the adult way of doing it was to spec out [a design], and have central engineering put it together and install it.

Well, that was boring to me, so instead I bought a dorm refrigerator and had one of the workers run some coils around in it and packed it up and made the thing work. It was a Rube Goldberg kind of solution. I remember the plant manager came around for the reviews, and I laid out how using the classical system, this would have cost \$7,000, something like that, and with my approach it cost 150 bucks. He just looked at me and said, "Why?"

I realized pulp mills were not my future.

**What did you do at Proctor & Gamble?**

I worked my way up pretty rapidly and ended up leading what was called the invention team. We worked on different brands like Spic and Span, Coast soap, everything from Pampers to Folgers coffee to orange juice. With a very small team, I took what I had learned at the University of Maine and applied it to the field of marketing and innovation. We ended up shipping nine new products in 12 months, which to this day is still an unbelievable record.

**Was P&G where you developed the idea-generating methods that you use at Eureka! Ranch and in your innovation engineering courses?**

That is where all of this stuff was originally born. And, I mean, it was wild. We wore jeans and sneakers into the hallowed halls, and [P&G was] about as blue blazer as it gets. John Pepper, Ross Love, all of the senior people up there, were extremely supportive of me and used me as a tool to help ignite change, be it in the packaging group, be it signs, be it in product developing or market research.

My rule at P&G was a very simple one, which was on January 1 and July 4, I would look up and

**“The way you move the Maine economy is to help existing companies do better, through innovation. It is a much faster, effective way because they’ve got the infrastructure.”**

ask, am I smarter than I was six months before? As long as I was smarter, I stayed. But one January I looked up and I said I haven’t gotten smarter, I’ve moved as far as I can. So after 10 years, I quit.

**This is when you started what would eventually become Eureka!, right?**

Yes, with three rounds of financing—Visa, MasterCard, and Visa. My high school sweetheart, Debbie, and I had a third child coming; she did double shifts at the hospital and I went into our basement and started to make calls. I flew out to St. Louis to see Anheuser Busch and Ralston Purina and had a whole bunch of meetings—and I came back with a \$700 airline bill. But I kept working on it.

Ross Love had told me, really pick who your early clients are and what kind of projects you



The culmination of a recent innovation engineering workshop at Sugarloaf was for teams to create an innovative brand of popcorn and present it to the group, complete with sales forecasts. This team added special packaging and a jingle.



Hall often speaks in bare feet. Once, while wearing sneakers, he got so excited during his talk that he misjudged the edge of the stage and fell off. He finds going barefoot safer. "It's not a social statement," he says. "It's a practical, Maine engineer thing."

do, because that will determine the pecking order of your business. At that time, remember, this is back 20-25 years ago, the hottest company, the Apple computer of the day, was Pepsi-Cola. There was a big shoot out where they were looking for somebody to do their stuff and my company ended up winning that. Then, about a month later, Ralston Purina came through with a project.

We've now gone on to do, I don't know, 20 projects for them. That's the world I deal with, the very biggest brands in the world. We've worked with all of them.

**But...**

Well, it's great to do Frito-Lay, it's great to create jobs at Ralston, and they're really good products, and a delight to people. But when it comes to meaningfulness, the corporate world is a little light, you know? I can walk that world, but I realized that when I went to the North Pole, 11 years ago now, what my real purpose was.

**Which was?**

You know that proverbial thing, if you end up at heaven's gates, and they shake their heads and say, "Dude, we had a plan for you and you didn't do it. Didn't you listen?" I asked myself, what is your best use, what is the thing that you can contribute to society to do something that is meaningful?

I realized that I had worked at bringing the spirit of the entrepreneur to the large company—I had basically taught them how to think like a start-up, because that's what I was. So I said, what if I take what I've learned and go the other direction? That led, after a long, long effort, two or three years, to a book called *Jump Start Your Business Brain*. That book has gone on to be named one of the 100 best business books of all time, a big, big seller, and it was really around celebrating small businesses.

**After that came Brain Brew radio, American Inventor, more books, more start-ups, all while growing Eureka! Ranch. How did you end up at UMaine?**

I was at the university—they were giving me some engineering award, which is really hilarious—and Hemant Pendse pulled me aside and said, "We're thinking about having an entrepreneurship center," and I said, "No, not entrepreneurship, you've

got to do innovation."

So I started to outline it in the conference room, on the spot, a draft of using an engineering mindset to teach innovation. We didn't have all the fancy words then, but the basic building blocks have remained amazingly close to it—the course on "create," the course on "communicate," and the course on "commercialize." Since then we've learned that only 3% of students, according to the Kauffman Foundation, want to be entrepreneurs, but we believe that 100% of students need to know how to create, communicate, and commercialize.

**The innovation center opened in 2006. Why did you take a sabbatical from Eureka! Ranch to come teach?**

When I turned 40, I went to the North Pole. So, last year I was turning 50; I said, what if I went back to campus, lived on campus, and actually taught courses? I had been talking about doing a course at Ohio State, and they said it would take two to three years. In May 2005, I mentioned the idea to Robert Kennedy [president of UMaine], and he said, "How about this fall?"

Last fall, we started to go around the state and give presentations about what we were doing and it was one of those, "it's not us, we're just the right people at the right time" things, because you had all of these wonderful, wonderful people—Maine

**"Come on, people, stop the whining, and start working on making something meaningfully unique."**

Development Foundation, MTI, the Maine State Chamber of Commerce, the SBDC, the Maine Extension Service, Maine MEP—all of these different groups were working to try to drive innovation. So we laid out a systematic process for doing that and danged if they didn't just get excited about it.

**Is that when you decided to go on the road with the innovation engineering workshops?**

Jake Ward and Renee Kelly and I had been working

COMMUNICATE

## COMMERCIALIZE

on a rough plan for some time. We'd been saying, okay, how are we going to make this go? I didn't want to just come to the university for a semester and be an entertainment icon. I want to leave this place better and really do something.

So we are going to determine the needs and wishes of companies in the state of Maine, we're going to connect them up using the Maine Innovation Marketplace, which is the digital portal that we've got, we are going to educate people to do innovation, and then we are going to provide coaching to help those people implement it in their companies so that Maine can lead the nation on innovation.

**What do you tell the naysayers who ask, "How are we going to get to be No. 1 in innovation in Maine until we fix our tax rate, energy costs, etc.?"**

I say, come on, people, stop the whining, and start working on making something meaningfully unique. Look within you. Have you had the guts and the courage to do something that is radically different? Do you have a profit margin as high as the competition? Is your retail price 20% higher than the competition? If it's not, don't whine about the energy costs; you're the problem. You haven't had the courage to do something bold, something new.

You've got to play the hand your dealt. Hey, you get to live in paradise, don't complain! You want it cheaper? You want to live in Nebraska? Seriously, I have zero tolerance for all of that noise. If you come up with something that is meaningfully unique, then you'll do fine.

The way you move the Maine economy is to help existing companies do better, through innovation. It is a much faster, effective way because they've got the infrastructure. By no means am I saying no to new businesses. Yes, we want those. It is just, proportionally, if you talk to people who do economic development, they say 80% of your time should be on established businesses and 20% on new businesses.

**I'm not sure economic development people get that.**

The problem is they don't have the tools. One of our latest research areas that we are spending a lot of time on right now, and I say we because it is me

**"In May, I mentioned the idea to Robert Kennedy ... and he said, 'How about this fall?'"**

and people at the university, is on the area of word of mouth diffusion. We are figuring out ways to assess it and we've just discovered, about a week and a half ago, what we need to assess in a message—clarity, focus, meaningfulness, drama—and when you get the message right, we've figured out a way to teach people how to double the word of mouth that their message gets. It's going to be huge.

**You really do try to keep getting smarter. What did you learn teaching at UMaine this fall?**

One thing is that it's way harder than it looks. You have 60 students in the class, you teach them, then you give them an assignment, and you look online to see what they post and all 60 "didn't do it right"—there is only one idiot now, only one person that gets the F, and that is the instructor.

**You have a whole semester to get your point across in three college courses, but you teach the same material in three days in your innovation engineering workshops. Do you realize how grueling that is?**

Part of the reason why we do three very long, compressed days is, we were looking at, how are we going to change adults? Adults are really difficult to move. The change required is on a much broader basis than just needing some ideas. What has to happen is a new way of thinking. So the intense, immersive experience—I have to apologize, but our goal is to break you down.

That's where the transformation comes. One guy wrote me afterwards that he had been working for eight months on building a new software product. On Monday morning, after the workshop, he remembered that there was someone they had talked about potentially partnering with, but had discarded the idea because they were going to do it themselves. Based on what he learned, he said, "Let's look at them again," so he brought the partner in, and signed a deal. He said, "Doug, I wrote the worst marketing piece for the new software and just mailed it—and now I've got two potential clients worth a million dollars." ■

# The Take-Away: Innovation Engineering Field Notes



**TRYING TO CONSUME ALL**  
**DOUG HALL** has to teach in one of his workshops is like

trying to drink from a firehose. Or, to use one of his metaphors, “The Eureka! method is to throw you in the water and take you out just before you drown.”

But it’s pain with a purpose, like overloading a muscle, Hall says. You and your brain emerge tired, even shaking, but stronger. Here is some of what participants learned at the recent UMaine/Eureka! Ranch innovation engineering workshops:

## **Meaningfully Unique or Cheap: Pick One**

Doug Hall defines innovation as something that is meaningfully unique. If it is not, then it is a commodity, and, in Hall’s words, “it better be cheap.” Meaningfully unique products are something customers are willing to pay more for. It’s not a one-time process: As others copy your innovations, you’ll have to create new ones in order to keep sales from slumping.

## **Fiscal Salvation by Innovation**

Innovation drives profits. Data from the summer of 2009 (during a recession) showed organizations focused on innovation were twice as likely to have above-average profits. Nationwide, according to Nobel Prize-winning economist Robert Solow, innovation drives 80% of GDP growth.

## **Fire Your System, Not Your Staff**

According to W. Edwards Deming, 94% of failure comes from the system, only 6% from the worker. Average workers will produce brilliant results with brilliant systems. It’s management’s job to create and implement those systems. If you’re not willing or able to do this, become willing and able. It’s your job.

## **CEOs Should Not Be Doing Layups**

The best and highest use of a CEO’s time is coaching the company to innovate more profitable products, services, and business models. Next best is coaching process improvements in manufacturing, marketing,

and selling.

The lowest and worst investment of a CEO’s time is to work *in* the business rather than *on* the business. CEOs must be coaches, not players.

## **Prove Your Promises**

Most communications to customers focus on features. Instead, articulate the overt benefits your customer will enjoy. Promise something measurable, and back it up with believable proof. A promise is what gets customers excited; proof is what closes the sale.

## **Mind Expansion Comes in Many Flavors**

Doug Hall takes you through a mind-melting series of exercises designed to stimulate creativity and out-of-the-box thinking. They involve everything from brainstorming using paper airplanes to methodical approaches like Matrix Mixing and Triz. Bottom line: You learn there are better ways to generate innovative ideas than to simply “think harder.”

## **Customers Don’t Always Know Best**

While interviewing customers is a great source of insight, the biggest ideas come from anticipating needs or creating products your customers don’t even realize they want. In the words of Henry Ford, “If I’d have asked people what they wanted, they would have said ‘a faster horse.’” One way to stay up on emerging trends, Hall says, is to follow patents and the people inventing them. Another place to start: Search [planetureka.org/marketplace](http://planetureka.org/marketplace) to browse ideas for sale and companies’ innovation wish lists.

## **Fail Fast, Fail Cheap, Fail Often**

Direct mail professionals have long practiced doing small mailings to test different headlines or offers, discarding losers and going with the ones that were most effective.

Failure is actually a better teacher than success—but you want to learn through quick, low-cost experiments. Hall recommends you first identify the “death threats” that could kill your idea upfront. Then test your ideas, tweak the promising ones, and abandon the duds.

While your competitors stay safe and stagnant, you’ll fail your way to meaningful improvements and innovations.

## **Consult Your Ready-Made Focus Group**

During the workshop, Hall had participants ask their current customers and employees to answer a few simple questions right then—via email, text messages, Twitter, or Facebook. The questions were things like: *What do you like most about us as a company? What do you dislike? If you could wave a magic wand—other than a lower price—what would you wish for us to do or offer?*

Within moments, in some cases, answers came rolling in. All it took was a few lines of text typed on the electronic device of choice and the guts to ask the questions.

## **Innovation Is an Acquired Taste**

Innovation is not natural for most businesspeople. Hall calls it “voluntary chaos, risk, fear, and uncertainty.” As a leader, your job is to empower your employees to be both willing and able to innovate.

Leadership, says manufacturing consultant Barry Bruns, “is the art of making people want to do what they otherwise would not.” Once your staff is willing to innovate, understand that they may need training and coaching in order to be *able* to innovate. Hall advises breaking the problem into small steps to dissolve both risk and fear.

## **Love Is Lucrative**

What does love have to do with business? Hall cited this fascinating study: 1,500 business school students were asked what they planned on doing after graduation. 255 planned to pursue their dreams immediately. The rest planned to earn money and then pursue their dreams.

Fast forward 20 years: Of the 255 who pursued their dreams immediately, 100 were millionaires. Of the 1,245 who decided to earn money first, only one was a millionaire.

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*For information about the next innovation engineering workshop, visit [www2.umaine.edu/innovation](http://www2.umaine.edu/innovation).*