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No Gag, Improv Comedy Can Inspire Innovation

By Katrina C. Arabe

Don't laugh. Engineers can actually improve the quantity and quality of their design ideas by taking some cues from improvisational comedians:

John Sweeney, owner and executive producer at Brave New Workshop Comedy Theater in Minneapolis, isn't joking when he likens engineers to improv comedians. Both are creative individuals, who strive for innovation, he points out. Additionally, both could benefit from an idea-generation process that his troupe uses, he says in a March 2005 Mechanical Engineering "Engineering Management" article.

As the head of the Brave New Workshop since 1997, Sweeney has studied how comedians think of a gag on the spot, taking a suggestion from an audience member and running with it. (The TV show *Whose Line Is It Anyway?* is a prime example of improv.) Using these improvisational techniques, his workshop creates sketches, and the actors refine these sketches utilizing what he calls the funnel process--a product development method. (Skits are products after all.) Engineers would do well to apply this process to their own work, says Sweeney. The first step entails brainstorming, with team members encouraged to come up with the most outlandish ideas. Since Sweeney believes the ratio of raw ideas to a great idea is 24 to 1, he urges his team to consider no less than 600 ideas for the 25 different sketches and skits in their shows. "We actually keep so strictly to our process that we don't allow the team to go on to the next step until we've hit 600 one-sentence ideas," he tells Mechanical Engineering. "We've found that to be the most consistent number."

When Sweeney presented his opinions to companies such as Hewlett-Packard, 3M and Medtronic, he found that engineers often do not come up with the necessary quantity of ideas at the start of product development. By limiting the number of concepts at the top of the funnel, they're impairing the creative process, he says, pointing out that the mathematical potential of 600 thoughts combining and begetting even more ideas is too rich to pass up. Forget about specs and issues of manufacturability at this point, he says. Just brainstorm away.

The second step involves refining those ideas. In Sweeney's workshop, every team member selects about 20 to 25 ideas from the 600 they've brainstormed, and breaks them down into their components--including characters, action points and punch lines. Sweeney also encourages engineers to do the same for potential products, examining their building blocks such as materials and performance specifications.

Step three includes collaborating with team members and casting out less-than-stellar ideas. "We're very conscious at this point in the process that certain ideas can organically lose their ability to make us passionate about them," Sweeney writes in his soon-to-be-released book, *Innovation at the Speed of Laughter*. Next comes engineering the product, he says, the fourth step in the funnel process. For Sweeney's troupe, this means hammering out the first draft of the script. For engineers, this entails drafting the first design. Group members provide feedback at this stage. Step five and six involve getting feedback from those outside the team. In the fifth step, workshop members present parts of the show-in-progress to select audiences to see how they're received. Similarly, at this stage, engineers demonstrate potential products to focus groups and gauge feedback. Then for step six, the troupe performs the entire show in front of preview audiences. Based on how the audience responds, the comedians then tweak the script some more. Similarly, engineers spend this stage on prototyping, reworking the product based on feedback, and testing it again.

"We've had to develop consistency in a manufacturing process filled with variables," Sweeney tells Mechanical Engineering. "When I talk about the funnel process with engineers, they tend to think 'Wow, innovation and improvisation don't have to be being silly or working in an advertising firm or wearing cool glasses.' We look at product creation like a process, just like the theater person does."

Source: Improv Engineering, Jean Thilmany
Mechanical Engineering "Engineering Management," March 2005
www.memagazine.org/emmar05/improv/improv.html