

## **PACKAGING INNOVATIONS INTERVIEW WITH JOHN CULTER**

### **INTRODUCTIONS...**

I have over 40 years of experience in R and D in various industries. I have been involved in packaging research and development since 1974. The research area has involved raw materials development, converting process development and end use application. I have developed an expertise in product package interactions and machine material interfaces. My company, Advanced Materials Engineering, has helped solve problems for clients in the paper, polymer, converting and consumer products packaging businesses.

### **DO YOU BELIEVE THE PACKAGING INDUSTRY IS READY FOR ONLINE EDUCATION? WHAT SHOULD THE PROGRAM INCLUDE?**

I think the industry is ready. There are actually many needs that the industry has for online and distance type education. One is that there is a need for an advanced degree program of some kind in packaging for those people who can't come back to our university for a full time education. They need to continue working, or they're too far away, or many different reasons. There is also a need for continuing education. In today's world, you don't just stop when you get out of school. You've got to keep going, or you lose your job. You've got to keep up to date. One of the avenues that we can pursue is to provide that continuing education for our graduates. There is also a need for training programs. We do that in an on-campus basis currently with short courses. But I think that in today's environment many companies would prefer to maybe get more in-depth for their non-packaging professionals. But they need training for various people, whether it's marketing folks who interact with packaging so that they can have a better understanding, or if it is their technicians that need training in how to do their jobs and understand packaging better. They want more depth. But they may not want to afford sending them away for many weeks to do this. The short courses we provide are just a weeklong at most. So there is an opportunity there for us to step into this.

### **BEING A FACULTY MEMBER OF THE SCHOOL OF PACKAGING, DO YOU BELIEVE MSU IS ADDRESSING THOSE NEEDS?**

Yes. We're starting. We've started an advanced degree program. We have a master's in packaging that we are bringing online as we speak. We've got the first few courses up, and we're adding courses every year to that program. That is being addressed. The continuing education piece, and the training or certificate program or whatever for other folks, both of those we're still debating how to do it, what it should encompass. That is kind of a challenge to a university. They're used to granting degrees. They're used to granting some sort of indication that you have completed some sort of training program. The whole other piece is they are concerned about how do you do the hands on. There is still a struggle about how we provide all of this.

**WHAT DO YOU SEE AS THE BIGGEST CHALLENGE IN DELIVERING COURSE MATERIAL OVER THE INTERNET?**

I think the biggest challenge is the piece I just mentioned, the hands on piece. We have talked about, we have struggled with, we're still trying to figure out how to do laboratory experiences in a non-face to face environment. That truly is a big challenge. There are lots of other challenges, but I consider them much easier than how do I put together a laboratory experience for somebody who doesn't have a laboratory sitting readily available for him. One of the things that we have done and we've tried some experiments. In Hugh Lockart's course on medical packaging, we photographed the experiments being done by someone else, gathered the data, and sent it to the students to be analyzed. That was our attempt at that. But then when you get down to the other parts of how do you deliver a course over the Internet, and you've got to make it challenging, you've got to make it entertaining. It's got to be rewarding to the student. So it's not just posting your lecture notes on the web. It's much more than that. There are many other features that come into it as you begin to teach. One is you lack the ability to transmit ideas in the same way that you do either verbally or in face to face. Even as we're talking here just in an audio mode, there is voice inflections. There is all of that helps transmit information. When you lecture in front of somebody, you've got body language. You've got animation that you put into it to dance around the stage and try to get an idea across. You don't have that when you're just dealing with the Internet. You've got to figure out other modes to do it. That is not always easy, but it can be done. One of the ways that we do that is we try to include animations. We try to include some voice-assisted presentations. But that brings us to another challenge that exists. The bandwidth that exists on the Internet limits the speed at which we can download these enhanced presentations. So I know what my attention span is. It's not long enough to wait on some of these. So we decided to go to another mode of delivery, which is to use CD-ROMS as an adjunct. We're doing that with my course to help bring some of these additional pieces to the student with a reasonable loading time. Finally, not the least of the problems is what does the faculty do for time to create this environment and to administer it? I will tell you from experience, it takes a lot of time to do it. Studies in the education field show that producing these types of courses takes more time than a face-to-face course. Interestingly enough, it does take more time to administer them. So one has to budget that. How do you get rewarded for it in the university system?

**DO YOU BELIEVE IT IS POSSIBLE TO RECREATE IN AN ONLINE ATMOSPHERE THE SOCIAL VALUE OF INTERACTING WITH PEERS AND PROFESSORS?**

Yes. You can do it. It's not easy as face to face. It's a different experience. It's interesting that I've found that we could get a degree of collegiality, a degree of interaction between the students themselves and between them and myself as we brought the material to them. You've got to provide a structure for that to happen in. We have a software available in this that we use, forum software, which we require the students to participate in. One of the things we found was if you don't require them to participate, you don't get the participation. If you get them to participate in the discussions where they work as teams to answer problems, work out answers to questions that I have posed, you begin to get a socialization going on besides the problem solving. It's kind of a

natural way that we human beings like to work. They haven't seen each other any more than they've seen me in reality. So they figure out ways to learn about each other and help each other learn things about themselves. We also use chat room software, which works as long as you're dealing with just a few time zones apart. Everybody has to be there synchronously. They can't be in the same mode that they can with the forum software. It offers a way to bring some socialization. Amazingly enough, you do see personalities develop even in the written word. It may not be the same personality as face to face, but it's a personality.

**WHAT SHOULD A STUDENT CONSIDER BEFORE COMMITTING TO AN ONLINE COURSE OF STUDY?**

I think the biggest problem most people will find is learning to have the time management skills that are necessary. All of a sudden you're launching into a learning experience that is going to be mostly reading and writing. That takes more time than it does if you are just doing verbal communication. That's much faster. We think and talk faster than we can write. They've got to have time management skills. They've also got the pressure of their job, their family, the other things they would prefer to be doing instead of studying. It's been my experience that they should be thinking about budgeting 20 hours a week for every course that they're looking at. It may not take them that much, so they end up with some extra time. It depends upon the course topic, how familiar they are with it, etc. But there has got to be some budgeting about their time. They've got to make sure they make time to do this.

**HOW DO YOU PERCEIVE THE RELATIONSHIP BETWEEN ACADEMIA AND INDUSTRY? WHAT ISSUES SHOULD BE ADDRESSED TO BEST PREPARE THE STUDENTS?**

Industry, I consider myself on the industrial side more than I do on the academic side. But I also relate to the other side. Industry is always talking about they want their students to have more skills at actually performing the job when they initially graduate. Everyone kind of forgets that they didn't have those skills when they graduated either. That is what everybody always wants. From the academic side, we're kind of in a corner about that. We can't provide that type of environment. We can't provide that type of learning. The one thing that Michigan State has in their undergraduate program that really is a plus is that they encourage everybody to do an internship. Those courses in anybody's program in an academic world where internships or co-ops are part of it, the student gets that industry experience for a period of time. They come out really prepared to walk into a job and at least understand what is expected in the real world. That is a real plus that Michigan State in the packaging program brings to their undergraduate students.

**WHAT DO YOU SEE FOR THE FUTURE OF PACKAGING IN THE YEAR 2002 AND BEYOND?**

My main focus is in the consumer packaging area, whether it's food products, which is my main focus, or in other types of consumer products. The challenge is going to be that the consumer wants more and more convenience, more and more functionality. We as packagers have got to figure out a way to do this at no cost increase. That's going to be

**PACKAGING INNOVATIONS  
INTERVIEW WITH JOHN CULTER**

**4**

the hurdle about how we bring technologies from various places to answer this problem. Typically when you bring all that back to a package, it costs more. Only occasionally do you get the consumers to actually pay for it. Ketchup we put in a squeeze bottle and got to sell for more. But that's an unusual case. It's going to be a challenge to do smaller packages, more functionality, and still get it to the consumer at the same price they are used to paying.

**THANK YOU...**