



National Center for Technology Innovation
Advancing Technology Innovations for All Students

NCTI 2007 Innovator's Conference

Session Title **Commercialization: From Research to Market Reality**
Names of Presenters **Kelly Carnes, David Dockterman, Steven Ritter, Dan Steneker**
Date **Thursday, November 15, 2007**

Summary

David Dockterman, Education Director, Tom Snyder Productions [www.tomsnyder.com]
(moderator)

David introduced this breakout session by sharing his "secret sauce" that proved critical for successful programs. He focused on bootstrapping with an emphasis on key values of continuity, integrity, and discipline that allowed his publishing company a successful 25 year history. He closed with a warning to all developers that "holding onto your vision" is critical.

Dan Steneker, CEO, CE Technologies, Inc.

Dan's National Business Services Alliance (NBSA) [www.nbsalliance.com] revolutionizes the traditional job search by focusing on the development and certification of job skills. His company works to circumvent an employer's inability to follow through on their intentions to hire individuals with disabilities by realizing the positive attributes this underserved population can bring to the workplace. NBSA is virtually run with its infrastructure outsourced. By concentrating on their intellectual property, they have developed certifications that reach 60% of the economy. NBSA currently works on training 5-10,000 disabled individuals at home with sufficient funding and user access to technology.

Steven Ritter, Senior Vice President of R&D, Carnegie Learning [www.carnegielearning.com]

Steven's presentation analyzed two major issues dealing with commercialization: transitioning from a university to company mindset and product improvement. The former is most applicable not only to the product, but also to the currencies professors-turned-developers use to operate. Sustainability is an important initial issue for companies, but farthest away in the minds of university professors. Continual product improvement based on the most current research is essential to maintain market relevance. Combining the amount of product data commercial companies generate with the expertise of professors can create a solid commercialization effort.

Kelly Carnes, President and CEO, TechVision21 [www.techvision21.com]

In a unique role connecting federal government funding with private companies, Kelly called for a national agenda on technology innovation. With a R&D budget of \$130 million and Defense agencies receiving the largest sums, only pockets of federal funds are available to other projects. Even then, these funds maintain a weak commercialization effort. Kelly did provide words of encouragement by promoting a national agenda that should be brought before the federal government by small companies and developers proposing increased public/private partnerships.

Discussion:

1. *From a commercial perspective, how do we deal with underfunded populations?*

Dan Steneker: This is something we face all the time. We have to decide whose interest is served by helping this group and how we can benefit the funder to support that requirement. We have to understand their [funders'] needs. We see the funder as the client and ask ourselves, "How do we provide a service to the funder through a better served audience?"



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Kelly Carnes: The market itself does not drive the innovation because of its size and various other factors. There are some funding streams within the federal government in the Department of Labor that define priority populations for service along with certain areas of the Department of Education.

2. Comment: In this discussion, there are also indirect partnerships outside of public/private partnerships like those between government and nonprofits that include for-profit sectors. This is something that needs to be explored when you identify a need, but you don't identify a marketplace. This will make a product commercially viable.

3. In talking about employment, there is a 70% unemployment rate for the disabled. Are you finding some success with your model?

Dan Stenecker: We understand that if we are to make a fundamental difference, it will require motivation. We've been focused on the motivations for work and asking ourselves, "How do we establish whether a person wants to work?" The second question to answer deals with how we get this population into jobs based on the skills they possess.

4. In speaking about partnering the public with the private sector, can you talk about actual business models and modernization strategies?

David Dockterman: We deal with a lot of products that the market could not support in partnerships with federal agencies, nonprofits, and universities. When we incorporate techniques for an initially small market, those are our selling features that may be applicable to school populations. This is a way for us to look on the revenue side, which is mostly subsidized by the federal government, but we must be savvy to the market to get our work to the right audience at the right price.

5. Can you talk about the role of universal design?

Steven Ritter: For individual technologies, you want to consider its broader applications. We have been particularly successful with ELL populations.

Dan Stenecker: If the market cannot be sustained by your initial market, you have to reinvent your product. Ultimately, if your product is not able to reach commercialization, it is not going to be sustainable.

6. There are a lot of secret sauces at play here, what kinds of common tools and practices are people using across companies?

Dan Stenecker: It is not all about technology or content. It is all about the market, the design, and how it works for the individual.

Steven Ritter: Our secret sauce comes in the form of serious empirical research. Our most successful products came along after student testing. Testing with students in an actual class is totally different from testing using software developers. The classroom atmosphere is totally different from that found within the company's product development.

David Dockterman: One common theme is that it's important get the product into the hands of the users and reach an iterative phase. We also need to understand what the issues are and not assume that traditional 'textbook' presentations are the best path to pursue. There is no one way.

Dan Stenecker: On design, simplicity is also important.

7. How do you go about connecting with a funder and distributor? Do you need a marketing plan?



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Steven Ritter: We tried to find a distributor for two years. We started a company because we did not find the right licensor. It was a long and painful process. You must be clear about a vision, what you have, and how it should work.

Dan Steneker: A resale relationship is the most difficult process to imagine in all of business.

David Dockterman: It is very common for the researchers to think they are done but the funder may not. To be at commercial level, we almost always rebuild from scratch to have a level of scalability. We do not look at marketing plans because we do not expect professors to have them. We want to know, "Does it work for kids?"

8. Comment: Scalability is definitely an important issue that funders could help university professors integrate into their research. As a policy issue, we need a proposal for orphan technology products just like the orphan drug concept. There is just not enough of a market for certain technologies, but they are critically needed.

Kelly Carnes: The point has been echoed by other projects and I would encourage you to continue to pursue these types of efforts especially with the upcoming presidential election and campaigns on both sides receptive to such initiatives.

9. What is the viability of a product that is open-sourced and web-based?

Dan Steneker: We would not invest in anything that is not web accessible.

Steven Ritter: I don't think that opening up the source code is a barrier to commercialization if you do it right. It would place you in the best position to bring the product to market.

David Dockterman: When it comes down to using it, there may be an issue with school district bandwidth. If 400 students simultaneously use this multimedia product, it may not work. The school technology infrastructure may make this type of product distribution difficult. You have to have the appropriate network technology like a media server.