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MAGAZINE

ALUM AIN MCKENDRICK IS PUTTING THE WHOLE (TECH) WORLD IN YOUR HANDS

By Teresa Mariani Hendrix

Palm Pilot PDAs. Hand-held, streaming MP3 players. TiVo. Cal Poly alum Ain McKendrick (**Computer Science '94**) has helped design and bring all of these technologies to your fingertips.

Talking with McKendrick about his career at a string of successful Silicon Valley startups is like a quick walk-through of this era's "must have" gadgets. His first project was working on the design team for the original Palm PDA (personal digital assistant). It launched in the early 1990s – when phones were still attached to cords and walls.

"All of the technology was already there," McKendrick said. "The cool thing is taking all of the existing technology components and combining them in a way that's never been done before. It's all in how you combine those technological components to create something. That's where the innovation comes in."

Now, as the senior director of Partner Products at Netflix, McKendrick is doing it again. His team is bringing movies and entertainment straight to TVs, game consoles, laptops, smartphones and any other electronic screen anyone can dream up – no DVD disc required.

McKendrick took time out to answer some questions in July after his return from a business trip to South Korea and Japan for meetings with consumer electronics manufacturers.

What are the next five things in your Netflix queue?
I tend to use our search feature with instant streaming these days, not a mailing queue. But as a motorcycle nut (*McKendrick was a member of the Poly Penguins motorcycle club while he was a student*), I'm in the middle of watching "Long Way Round" which isn't out on streaming just yet. It's a three-disc series, so I have the next couple discs lined up in my queue.

I'm hooked on streaming. Once you have more than 25,000 TV shows and movies available at your fingertips, there's no going back.

Netflix subscribers can stream movies on their video game systems now. What else will be able to stream Netflix soon? Smartphones?
Absolutely! We released a version of Netflix on the iPhone over summer. We launched the iPad version this past spring. While a lot of our content is suited to watching in your living room, giving our subscribers the ability to watch Netflix any time and anywhere is one of the partner products team's focuses.

Netflix instant streaming is available on all the major gaming platforms – Xbox, PS3, and Wii. You'll also find it available on TVs, BluRay players, set-top-boxes and more from all the major consumer electronics brands. The team has helped our partners launch Netflix on more than 200 products so far. We're launching more products here more quickly than I ever have at any other time in my career.

You designed something called a "Pistol Mouse" in 2004. It's a joystick that looks like a cool water pistol on a mouse cord, and it helps video gamers shoot people on screen better and faster.
I would say that falls into the "crazy side project" category. It actually grew out of an idea from friend who was getting carpal tunnel syndrome from playing too many video games. He showed me a prototype, and I thought it was great. We'd both done startups before, so we figured: Why not do a "mini" startup? Since it was targeted at
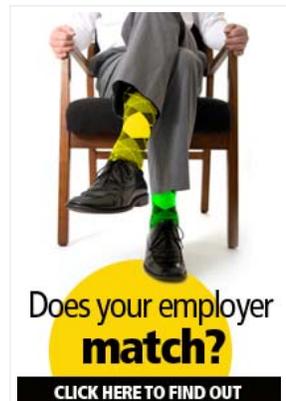
gaming, we figured it had to have a cool look. It was not only a lot of fun, but it was great learning experience, since it was the first time any of us had tried launching something in the gaming space.

Is playing video games a good way to launch a career? And if your kid is playing them all the time, are you the perfect example of why parents should let them keep playing?
When I was younger, I probably would have given this a resounding "Yes!" But the adult in me now would probably say "within reason." When I was a kid, we had to learn basic computer skills just to launch a game. Gaming consoles these days have made it as simple as dropping in a disc. A game console doesn't force kids to learn more about the device in order to get to their end goal of playing the game. Plus, everyone needs to get out of the living room sometime.

But I have to say I look forward to beating my own kids at video games someday – or showing them a thing or two.

Did computer games get you into computer programming and design?
Actually, yes; it all grew out of a kid's desire to get out of class the last 30 minutes every day. When I was in sixth grade, there was a retired guy who came to our school and taught simple programming to students for a couple hours at the end of the day. If you took the class and you finished the assignment, you got to play games on the library computers. That's what I did.

You were part of the team of engineers that designed the screen and controls used by TiVo viewers. What was the biggest challenge in doing that?
We really wanted to make sure it worked for everyone – not just a bunch of technology types like ourselves. Up to that point, the most complex user interface built into TVs was channel up/down. If we made TiVo too geeky, we knew the product wouldn't be a success. I think the moment I realized we had it right was when I was giving a demo to a friend's 94-year-old great uncle and he just "got it." We knew if we had a user interface that worked for everyone from kids to 90-year-olds, we were set.

So far in your career, what's the accomplishment that's been the most fun?
The original PalmPilot – nothing beats seeing something you've helped to design and build show up in retail and seeing real customers buy it. One of my favorite memories was walking into Fry's Electronics in Palo Alto and seeing a stack of shrink-wrapped PalmPilots at the end of an aisle. I picked one up to look at, and a guy walked up to me and said "You should buy that thing. It's a great product!" That's an awesome feeling.

How did you get on the team that created the Palm?
When I was at Cal Poly, I did a summer internship in 1991 at GRiD systems, which developed the first laptop computers and the original pen computer. While I was there, I got to know Jeff Hawkins (one of three co-founders of Palm Computing). He gave me a call in the fall of 1991 and said "I'm starting a company to do super portable pen computers. Are you interested?"

I didn't want to do it without planning to come back Cal Poly to finish my degree. I found out I could do a two-year leave of absence without having to re-apply for admission, so I called Jeff back the next day to let him know I was in.

Palm was my first "real" job out of college. It's where I caught the startup bug, which led to a string of them over my career. I used part of my experience at Palm as my senior project. It's probably still on a shelf in the library somewhere.

Why did you pick Cal Poly as an undergrad?
I had a chance to visit Cal Poly before applying, and there were a couple key things that stood out. I knew what I wanted to do, so starting directly in the major of your choice was attractive. Also, the learn-by-doing philosophy resonated with me.

What class(es) at Cal Poly helped you get where you are today?
Software Engineering, with Dan Stearns – it spanned two quarters, and students had to take a project from concept through design and implementation. It's that learn-by-doing thing. You roll up your sleeves, get your hands dirty and gain an appreciation for what you can get done in a fixed amount of time.

I know a lot people with a great background in computer theory from other universities, but learning what it takes to plan and execute a project is critical for technology businesses. And software engineering is really a needed art in the industry these days. I think the whole learn-by-doing philosophy at Cal Poly definitely helps train people for the startup environment.

So does the quarter system. You're working on a slightly faster schedule. You have less time to assimilate the material, and you're under the gun to get something done during a quarter instead of a semester. Cal Poly's pace is good training for people who are going to be in an industry that moves very quickly.

What's your advice for Cal Poly students (or alumni) who want to succeed in the entertainment or computer gaming industry?
First, find a company or a project you're passionate about. If you're not excited about what you're working on, it becomes just a job. You start to lose your creativity.

Second, you need to look at the roles you'd want to play in the industry, since there are many ways to fit in. Are you an engineer, a business person, a designer? Learning what each of these careers entails allows you to go after the experience needed to get yourself in the door.

People look at my experience and ask me if I had a blueprint to get to all these places, and I really don't. It all comes back to doing what you're passionate about. Everything I've done and every place I've worked has been the result of hearing about a product concept and thinking: I've *got* to get one of those.

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