



For Macromedia, the Future Belongs to Non-PCs

Published : October 20, 2004 in [Knowledge@Wharton](#)

Macromedia started out as a pioneer in multimedia software for CD-ROMs. When the world wide web came along, it was among the first companies to identify its technical and business potential and to develop products, such as its Flash web animation software which is installed on some 98% of all PCs. For the future, though, Macromedia, which has sales of \$369 million, believes its highest potential lies in products for non-PC gadgets such as mobile phones, personal digital assistants, DVDs, etc. The company is also reaching beyond its traditional customer base of web designers and developers to focus on business users and consumers. Knowledge@Wharton recently spoke to CEO Rob Burgess and CFO Betsey Nelson in Macromedia's San Francisco headquarters to explore where the company sees its opportunities - and threats.



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Knowledge@Wharton: As IT companies go, Macromedia is relatively small - but it has had a huge impact on the web. What's your secret?

Burgess: You're right about it making a huge impact. When I came down here from Toronto in about 1996 or 1997, it seemed like half of the people in Silicon Valley [had] a personal experience with Macromedia. And if you look at our background over the last 10 years, you can see why.

In the early days, Macromedia had most of the main brands for creating better experiences on CD-ROM. So we're sort of a founder, if you will, of the multimedia industry - which touched a lot of people's lives. All of a sudden you could do pictures and sounds and words on computers, and mix them together. And they made very powerful experiences.

Betsey and I joined Macromedia just as the CD-ROM industry was peaking out. And we started investing very heavily in the Internet. Products like Flash and Dreamweaver - and other brands - played a leading role in enabling people to make better experiences on the Internet.

A lot of our customers went bankrupt in the 2001-2002 timeframe as part of the fallout from over-investing in the Internet. But a lot of the things we were talking about at that time are happening now. It's just that people thought they were going to happen in a week, and software systems take a while to build.

Knowledge@Wharton: What sort of things?

Burgess: Better experiences - having very powerful personal experiences on the Internet, aggregating a number of different media types. It takes time for systems to develop and for people to really understand what effective design is in this new medium. You're seeing all kinds of examples now of *incredibly* better experiences - and a lot of them are enabled by our technology.

Knowledge@Wharton: Could you give us examples of these experiences and how they are deeper, richer now?

Burgess: There are examples in almost every market. A good example is hotel reservation systems. In the past, when people were looking at just HTML, they would see screen after screen after screen - basically playing 20 questions. And at the end of the process - all of a sudden - they would get a message that said, in effect, "I'm sorry, but we don't have a room available for you." This is very different than having an experience that's like a desktop experience, where you are *interacting* with the screen. It's a much more cognitive experience.

So Macromedia played a leading role in CD-ROMs and the Internet. And now we see a huge new trend happening in which we're very involved - which is making products for "non-PCs." A lot of people are calling that the "mobile" market - including us - but it's so much more than mobile. It involves TV sets and DVDs and game machines and educational toys - as well as phones and PDAs.

We just had NTT DoCoMo in here this morning. The Japanese mobile telecom company is one of our biggest customers. Some 13% of Japan's population today has a Flash-based phone, and we got going with them just a year and a half ago. DoCoMo ships almost a million phones a month - all of their two-and-a-half G and 3G phones.

The content ecosystem that is developing in Japan around Flash is absolutely phenomenal. There are several thousand web sites now supplying Flash content, and it's simply because, as human beings, we're multi-sensory creatures. To the extent you get more senses into the game, people like [it] more - cognition happens more quickly. So now, on the trains, it used to be that people would be banging away on e-mail. Now they're banging away on games. It's phenomenal.

Knowledge@Wharton: Does Japan represent your biggest business opportunity?

Burgess: No, Japan is the *earliest* business opportunity for mobile. The phones are more powerful there, and the networks are more powerful. DoCoMo was the first major mobile operator to make Flash part of its strategy. They had Java in their phones, and then they decided to differentiate with Flash. Since then we've signed up more than a hundred partners. KDDI is the second service in Japan, and they've now launched with Flash. T-Mobile in Europe has launched a mobile news and information service based on Flash. So it's starting to come across the globe. And in a few years North America will be operating as well.

Knowledge@Wharton: Is this the consumer end of your business?

Burgess: Yes. For the first decade of our existence, we supplied leading tools for designers and developers to create these [rich] experiences. And now we are broadening how we enable better experiences to both business users and consumers. And that's our growth strategy for the future.

Knowledge@Wharton: In looking at your numbers, it appears that in 2003 the proportion of revenues from business users and consumers went up significantly. What's your strategy for these two segments going forward?

Burgess: They're actually much larger markets. The strategy is very simple. We have all these assets in our designer/developer business, and we are leveraging them to provide value for the business and consumer markets. Have you seen our Breeze presentation of our conference call? That's an example of Betsey and I using a different environment that outputs to Flash. So, if you're technical and you want to express yourself on the Internet, use Flash. For business users, for executives, Breeze is the platform— but [it] leverages the Flash Player.

Similarly, Contribute leverages Dreamweaver, and that's for non-technical users. And for the mobile

world - that's all about the Flash Player. So, we are leveraging existing assets into much broader markets.

Nelson: These markets are orders of magnitude larger than the designer/developer market, which is around 10 million developers worldwide. We're talking of tens of millions of people in the business user category. And looking at the audience of PowerPoint and [Microsoft] Office, it's in the range of *hundreds* of millions.

Knowledge@Wharton: How big are these markets in financial terms?

Burgess: We've grown the designer/developer to be a \$300 million business in the last seven years. When we got here it was about \$100 million a year and now it's nearly \$100 million a quarter. We have almost quadrupled the size of the business over that period of time - but mostly in the designer/developer market.

When I look at the consumer market as an example, there are about a billion and a half phones out there today. Maybe 20 million of them have Flash - or any kind of sophisticated multimedia capability. In five years, there will likely be 5 billion phones out there - and *most* of them will be multimedia. So I feel like we're at the very beginning stage of that market. Over five years, Macromedia could have an opportunity to have businesses in consumers and business users that are at least as large as the designer/developer business is for us now.

Knowledge@Wharton: Will you have equal shares in these businesses?

Burgess: Well, it depends on how we do. The market opportunity certainly would support businesses that are bigger. But I would think that if we ended up in a few years with equal businesses there - getting there the right way, not the wrong way - [*laughs*] that would be good.

Knowledge@Wharton: What major risks do you see today?

Burgess: The principal risk, I think, is around execution. I mentioned that we quadrupled our business in the last seven years. We've also tripled our staff. That is where the increased profitability comes in. But operating a company of this size and pursuing new markets primarily involves execution risk.

For the first several years [the risk] was market size - we didn't have that big of a market. We have 90-plus market share in the case of Dreamweaver and so it was really broadening our agenda. While there is competition in some of our fields - web conferencing in particular - the fact is that there's not a lot of competition out there for Flash at the moment. Flash has achieved ubiquity in terms of PCs - 98% of PCs have Flash. We have more than a million developers. Those are really the two assets that people want in a multimedia runtime. So, the major issue for us is not competition as much as it is effectively executing on the market opportunity.

Knowledge@Wharton: Speaking of competition, it seems that you have two types of rivals as you enter into business and consumer segments. On the one hand, you have the Microsofts and the IBMs of the world. And, on the other hand, you have relatively smaller companies, like WebEx, which have a larger market share of that kind of business. How do you plan to deal with these two different kinds of competitors?

Burgess: Again, it comes back to a differentiated offering. Because we own the Flash Player and that is so important to the ultimate end-user experience - that's a long-term competitive advantage. If you look at any of the other solutions, they require complicated downloads and plug-ins. And, so, the fact that we own the client as well as the server gives [us] a long-term competitive advantage. We look at it as a differentiated product offering that really leverages our existing assets to provide people with a better experience.

Knowledge@Wharton: Back when you started as CEO, there was what appeared to be an upward trend in CD-ROM tools.

Burgess: Well, actually, I started after that growth had stalled. It *had been* a strong trend - but the growth had stopped.

Knowledge@Wharton: Looking at it from where we are now, it seems clear that the web was the way to go, but it was not that obvious to everybody back then. How did you form that vision? And how did you then turn around the company and stay focused on the web as the next wave of that growth cycle?

Burgess: You know, in truth, I would say my role was only in creating an environment where the people could bet on their vision. We all saw the Internet coming, and when I got here, when you talked to everybody they would all say, "The web is the future, the web is the future" and then they'd go back to making their CD-ROM tool. All Betsey and I did was to create an environment where they could actually bet on the vision that they had - and that was about the web. I can't take any credit at all for saying "This is the way we're going to go." I've just given them the power and the resources and the time to retool our business.

At the time we had 10 separate products. In the first six months, we stopped seven of those - they were all CD-ROM based projects. We converted all those resources into projects which were oriented around the Internet.

Knowledge@Wharton: You've talked about how important the ubiquity of Flash is - and the Flash Player. But over this time period there were a lot of companies with interesting file formats - all of which they wanted to become *de facto* web standards. It happened with Flash, and [Flash's] SWF file format. Why did you succeed when a lot of other companies didn't?

Burgess: You know, nobody has ever asked me that question [*laughs*]. I think it was a combination of a clear and unwavering strategy, and a great technology, and some luck - associated with timing. We had Flash - and probably its best characteristic is that it has beautiful fidelity of expression, but a very small file size. What often happens with products that have small file sizes is that everybody thinks of a million other things that they can do, and very quickly the file size balloons, and you lose its essence. We had a great technologist, Jon Gay, and I remember hundreds of conversations where people would go to Jon and say, "What about this?" and "Add this" and "Add that" and he just said, "No." [*laughs*] So we had a very clear strategy that ubiquity was the most important thing. And anything that got in the way of ubiquity just didn't happen - and significantly increasing the file size was one of them. The harder part was actually establishing relationships with all of the constituents out there that we needed.

Knowledge@Wharton: Flash Player was bundled with both [Microsoft's Internet Explorer] and Netscape when a lot of other rich, third-party plug-ins still required separate downloads. How did that happen?

Burgess: Well, that was our strategy. That was a very concerted business development effort. We spent a lot of people and a lot of time - and even some money - to achieve that distribution. We started with Netscape - Netscape was the first one. And then we worked on a relationship with Microsoft, which started bundling our Flash Player with IE and Windows. After that we partnered with Real, and then with Apple. We started getting at all of the various ways that people were getting onto the Internet. It was an uphill battle for the first year-and-a-half or two years. After that - once it had become the *de facto* standard - it was easy to establish relationships with the companies. There's no cost associated with [distributing the Flash Player] in the PC world. But in the consumer space, we do charge per unit fees. But we have the same intention to make it a standard.

Nelson: Just to draw the parallel out, in the PC world we found that when we hit about 50% penetration we saw enormous velocity on the distribution. The reason is that once you're programming for a format that is ubiquitous, there's no objection anymore. In early days - when we had 30% penetration - "Should you write in Flash or not?" was always a question. But once we passed 50% it was kind of a no-brainer. I believe we're going to see the same thing in the mobile world.

Burgess: It's the same in consumer electronics. You think about the CD format or the DVD format [and] it's like - it doesn't happen, it doesn't happen, it doesn't happen - and then all of a sudden it happens. And that happened for us with Flash. It's a virtuous circle.

Nelson: It's a chicken-and-egg event. Is it out there? Should you program to it or not? Is it VHS? Is it Beta? [*chuckles*].

Burgess: Most web sites - even if they're committed to Flash - wait for 90% penetration. We are downloading 6 million Flash Players per day. And so it takes just about a year to achieve that 90 percent penetration. I think we're just there now with the latest version.

Knowledge@Wharton: In fact, this relationship continues now. Flash Player 5 is included in Windows XP and [the recent Windows XP service pack] SP2 [includes an upgrade] to Flash Player 6. On the other hand, we hear stories of Microsoft working on technologies - for example, something called "Sparkle" - that, to some extent, seem to enter that rich user experience space. You're extending the Flash experience with things like Flex - do you think it's going to be difficult to continue your relationship with Microsoft? Do you see yourself getting into a more competitive situation with players like Microsoft in the future?

Burgess: Again, that's a good series of questions. They are at the heart of a lot of what we do here.

To begin with, we have the full expectation that many, many companies will get involved in much richer experiences. It just wasn't possible before and everybody loves the Internet. HTML was great. And the browser was great. But user interface and user experience went *back* 10 years. [Everyone] liked what the Internet gave them, but a whole lot of web sites are *terrible*.

So we think everybody's going to get involved. We think we're on to important trends for the future.

The other thing I would say is that our long-term competitive advantage is cross-platform. People don't want a million different environments, they want one. In the early days that cross-platform was PC and Mac. And then, [with] the Internet, the most important cross platform thing was IE and Netscape. Now the most important cross-platform issues revolve around PC and Mac and Linux and non-PC. Non-PC is the biggest business of all.

I would also point out that, in 1997 or in 1998, getting Microsoft distribution of the Flash player was a *huge* thing. Now Microsoft distribution of the Flash Player is handy for people - I think Flash is the only third-party product that is now distributed with IE - and I imagine they'll continue to distribute it for some time. But even if Microsoft ceased to distribute it, it's still the standard. And that distribution now is not as important as it was.

Knowledge@Wharton: You've talked about how you've leveraged Flash. You moved it on to additional platforms. But there's another sense in which you're leveraging Flash. Flash's SWF file format now becomes the underpinning of a number of products - Central, Breeze - these are actually Flash applications. What do you think the future is for repositioning Flash not just as a rich user interface creation tool, but as a *platform* on which people build other products?

Burgess: That is precisely our strategy as a company. [Flash] started as an animation engine. We left it as

an animation engine for a while. And then over the last several years we have been investing very heavily to broaden the "platformness" of it. We started being able to run applications in it - we call them "rich Internet applications" - that combine multimedia as well as the ability to execute logic at the client-side. We have built a number of products around [this platform] and we intend for third parties to build products as well.

There's an entire Flash ecosystem. It starts with the Flash authoring tool for designers and developers. We've added Flex to that, which is now for programmers to bring Flash to classic enterprise applications. Breeze, so you can use PowerPoint to author Flash. Central, to allow Flash to occur outside the browser and in an offline world. You're going to see more and more of that.

Knowledge@Wharton: When you talk about this "Flash ecosystem" it is reminiscent of a rather famous boast that Netscape founder Marc Andreessen made many years ago, when he thought that the web environment would become the development platform of the future, reducing the operating system to a "poorly debugged set of device drivers."

Burgess: I don't believe that at all! *[laughs]*

Knowledge@Wharton: Despite the success of the web browser, that didn't quite happen. Will Flash . . . ?

Burgess: Let me say that we don't have that same kind of "Flash is everything" [philosophy]. We're talking about specific kinds of applications - which are really advantaged by multimedia capabilities, and which, in some ways, are not as sophisticated as broad, complex applications that require a "fat client." These are applications that benefit by operating on multiple platforms. So we have our eyes riveted at a narrower section of the market. Flash is not an alternative to Windows.

Knowledge@Wharton: Fair enough. You [also] seem interested in content delivery over the web. You started an independent company, Shockwave.com, which has since merged with Atom films - as a web-based content company. What's the prognosis for content plays on the web?

Burgess: It's actually quite interesting in the mobile space. AtomShockwave was an asset in distribution that we decided to monetize a different way. Interestingly, this year AtomShockwave will be bigger in revenue than Director - the original code base for outputting to Shockwave - and that's still a very good business for us. By monetizing an entertainment space, that asset is going to be bigger. And it's profitable as well. We own somewhere between 30% to 40% of that company. So it's something that we own, but don't operate or manage - just a different way of leveraging assets.

Content delivery is very interesting for us in the case of mobile. We have an experimental prototype called FlashCast that is will be going into trials with carriers in the next several months. If you remember PointCast - PointCast was a good idea, but it didn't work. FlashCast is a content delivery platform for mobile devices that allows information to find you.

The problem with mobile devices is they have all this power but they're difficult [to use] to go and get anything. Using FlashCast, consumers would have an opportunity to subscribe to premium services - weather, traffic, news, etc. - and then have that information updated automatically. [When] you see the prototypes - the user experience is obviously so much better than anything that's on phones right now. Everybody is very excited about it. We're interested in enabling a better experience - rather than Macromedia being involved in the creation of cartoons or something.

Knowledge@Wharton: Why do you think PointCast didn't succeed - since the ideas are so similar to FlashCast?

Burgess: Too big!

Knowledge@Wharton: You mean the *client* was too big?

Burgess: The client was too big. And it was - I don't know the architecture in detail - but I think that it was constantly updating. And so it was sort of a big, hairy environment that wasn't thoroughly tested and brought down everybody's network which IT guys don't like that much. [*augh*s]

Knowledge@Wharton: We talked about Microsoft a bit. Another competitor of yours is Adobe Systems. You compete with them on a number of fronts . . .

Burgess: Very little. FreeHand competes with Illustrator - it's probably 85% [Adobe Illustrator] / 15% [Macromedia FreeHand] market share - something like that.

Knowledge@Wharton: Dreamweaver competes with GoLive . . .

Burgess: [Macromedia] Dreamweaver has about 95% market share and [Adobe] GoLive has about 5%. Those are the two cases of point products where we compete.

Knowledge@Wharton: You also have FlashPaper now, which produces both a [Flash] SWF-based document format and a PDF format.

Burgess: Seriously, I believe that the amount of overlap between Adobe and Macromedia - five years ago - was substantial. And now, it is very little.

Knowledge@Wharton: Was this a conscious move?

Burgess: Well, what happened was that [Adobe] concentrated on some businesses - and really got going with them. Adobe's been a document-centric company, and it's done very, very well. Adobe invested in Acrobat for a long time and it was unwavering. And it finally broke through - and that's a great business.

Photoshop's a great business for Adobe - we don't have anything that competes with that. Video's a great business for them, as is PostScript. In all their businesses, Adobe has lots of growth and lots of profit. We don't participate there.

And, similarly, we got going with web publishing - then multimedia on the Internet, and Breeze, and some of these high-growth products. Adobe doesn't have anything that competes with these products.

So there is historical, legacy-level overlap, but it's really minor. When I look at where the companies are going, there's very little overlap. And I think [Adobe CEO] Bruce Chizen would say the same thing.

Nelson: Although, interestingly, there's a lot of similarity in business model. We are developing similar capabilities from a sales and marketing channel perspective - building out our direct sales force in a similar pattern to what Adobe has done.

Knowledge@Wharton: As you go into these new territories - like the mobile area - are you planning to make any acquisitions?

Burgess: We made a couple of acquisitions last year - very good ones. One is called eHelp, and that brought us some new capability - particularly for the training marketplace [and] broadened our solution

set. We also acquired a company called Presedia, and that - married with the [Flash] Communications Server - became Breeze. We have just made a small acquisition in the mobile segment. I would say our acquisition interest at this point is probably higher than it's ever been. There are so many good opportunities out there. I'd like to make a few more this year.

Knowledge@Wharton: Where do you see the most promise in terms of adding to your capabilities?

Burgess: I'm mostly interested in the mobile area. And communications - starting with web conferencing and with bringing in all these rich capabilities - is also interesting. Voice over IP is here now. Voice is just another data type for multimedia. You're going to see communications appliances that are entirely different, and capabilities that are entirely different. I think we can play a leadership role there, so I'm interested in both those worlds.

Knowledge@Wharton: Your SEC filings show that you have as big a facility in Bangalore as you do in Texas. What kind of work are you doing in Bangalore, and do you see that growing over time?

Burgess: We've actually had 60 or 70 people working with Macromedia for a while now in India - although they weren't employees, they were [contracted] through an outsourcing company. We decided last year to go direct, and to make them Macromedia employees. We're gearing up that facility quite aggressively now.

They're doing all kinds of great work for us. They are working on different code bases - in some cases they're porting it to different platforms; in some cases they're doing certain localizations; they're doing some IT work. So they're performing a variety of functions. I would hope that we would have several hundred people in Bangalore in a year or two. We intend to continue to invest there.

It changes the nature of occupations in North America. We're playing an active role with our employees. Where the economics are substantially different - performing certain work here versus performing certain work in India - we're working with [our employees] aggressively to develop skill sets for occupations here that are not likely to move elsewhere in the world anytime soon.

For instance, if you have a great QA [quality assurance] person and you know [that], in a year or two, you might be doing that QA elsewhere - because it's a function that can be very well performed [through outsourcing] - converting those people into system engineers, as an example, where they have customer-facing roles and work actively with the customers, is a great career transition. We're hopeful that we can grow employment in the United States *and* grow employment in India at the same time - not make it a zero-sum game.

Knowledge@Wharton: You don't see a trade-off?

Burgess: We would like to grow both.

Knowledge@Wharton: If the CD-ROM drove the first wave of your growth, and the Internet drove the second wave, what is going to drive the third wave of your growth?

Burgess: Non-PCs - and it's the biggest of them all. It is all of these devices. Pick up any magazine today - filled with all the gadgets and TVs and DVDs. I expect that we will have relationships with consumer electronic companies where they will be buying copies of Flash in the hundreds of millions. I expect Flash to be bundled into devices of *all* different sorts. It's already starting. The value proposition is so clear - great experience, low bandwidth, millions of developers that can target that platform. And all from a company that is non-competitive with them.

These are assets that make us very excited about the future.

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