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THE NEW MEDIA BIBLE

"I'M NOT A DESIGNER, I'M AN ARTIST"
IS THERE REALLY A DIFFERENCE BETWEEN
COMMERCIAL DESIGN AND ART?

IS USABILITY ALL IT'S CRACKED UP TO BE?
WHY THE RULES ARE THERE TO BE BROKEN

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ENGINEERING WORKS

ARE THE DAYS NUMBERED FOR TRADITIONAL STANDALONE DESIGNERS AND PROGRAMMERS? DESIGNER GEORGE SHAW EXPLAINS WHY HE THINKS THEY COULD BE REPLACED BY A NEW BREED OF WEB CREATIVE



When I was a senior in high school, I was offered the chance to go to a special school and study art for half of every day. Of course, I did. The glitch, though, was that if I went to study art, I wouldn't be able to continue taking maths classes. Well, I went for the art school option, and have never looked back since.

But as I sit here racking my brain, trying to work out an algorithm for calculating the distance from the perimeter of a circle based on the x and y coordinates of a moving object, I realise that I was cheated. I should have been taught art and maths...

How does this relate to my career as a Web designer? There are currently two schools of thought about the Web design process. One says that designers should design, programmers should program and the two should try their best to meet in the middle – the established way of doing things.

But the other view is becoming increasingly popular among certain sections of the Web design community. It says that designers should be the ones making all of the creative decisions. They're not just responsible for the visual look of a project, but they must also develop its *feel* – the way things work, interact and animate.

In dealing with these new issues of *feel*, a designer has to pull together all kinds of different skills, ranging from interface design and information architecture through to coding and technology implementation. They tend to fall between the role of

a traditional visual designer, an engineer and some kind of "tactile designer".

For want of a better phrase, let's call them sensory engineers. Although they're currently more commonly found working on experimental sites, they're going to become more important to mainstream Web design in the years ahead.

MAKING HISTORY

First, let's look back. For a long time, all Web design was loosely based on print design, and this was reflected in the working processes of most Web designers. They'd create flat Photoshop comps and then hand them off to a programmer, who'd handle the actual business of making them into a website.

By and large, this process worked well. Until *Flash* came along and made so much more possible – and expected – in the way of interactivity and animation. Designers now had more options for creativity beyond elegant typography and powerful imagery, but these new opportunities required new skills.

Listen to British designer and author Brendan Dawes.

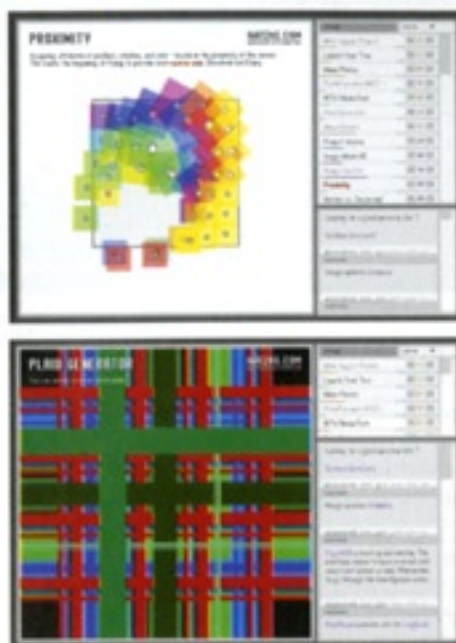
"The reason I started to learn the coding side of things was because I was frustrated by having to hand over a flat design to someone else to make interactive," he says. "I wished I could do that part as well. Using the code as part of the creative process makes you think in a different way as a designer."

Consider the print world. There, while graphic designers need to know the basics of how a brochure is printed, they're rarely required to actually go and


```
=e.pageY}  
mouseY=event.clientY;
```

SENSORY ENGINEERS FEATURE

```
roplayer[i]  
nt.'+f7_drop  
roplayer[i]  
nt.'+f7_drop  
'.style.pi
```



Erik Natzke is one designer who craves creative control of his work, as seen at www.natzke.com.

run the press themselves to produce it. Increasingly, however, many Web designers are making themselves responsible for "running the press" and actually producing their final product – websites – without outside help. Why? It's down to control.

CONTROL FREAKS

Almost without exception, sensory engineers claim they do what they do because they're creative control freaks. Designers often feel they can do things better themselves, and that if they let others hold sway over their creative decisions, their vision will be changed.

"I want to have ultimate control over what I create," says Erik Natzke, founding partner of Fourm. "By empowering myself with knowledge, I'm always increasing my ability for what I'm able to create."

While it's true that this reverence for one's own vision probably has a little bit to do with ego, it's also a function of the need to carry out one's design experiments in a "pure" environment. A huge part of the motivation for a designer is seeing whether a particular piece of type or interactive element works.

If it doesn't, there's nothing worse than having to blame someone else for that failure. If you're able to keep your creative process free of outside influence – or as free as possible – only then can you truly judge the effectiveness of your own ideas.

In any project, someone has creative control. Sometimes, this control is diffused across several people, often with very different roles. Consider the old maxim that good art is rarely created by

committee. What start out as powerful ideas can very quickly be compromised into standard-issue, boring solutions under these circumstances.

While this compromise is often important for practical and commercial reasons, it's arguably the designer's job to fight against the dilution of ideas in an effort to push the limits of what the Internet can be. Natzke certainly agrees.

"We do our part in shaping how communication design evolves in regard to digital interaction and expression," he says. "In other words, we're still idealists and still foolish enough to think that we can make a difference."

DIRECTOR MOVIE

Consider the movies. The best films are usually those where the director's vision saturates every aspect of the picture. From set design to cinematography to editing, a good director will have strong ideas about all aspects of the production, and fight to see those ideas realized. It's surprisingly similar in Web design.

When it comes to user experience, much of this comes from the way a site is programmed and executed, as well as from the way it looks. Modern websites aren't just programmed right or wrong – ➤

SKILL SEARCH

WHAT MAKES A GREAT SENSORY ENGINEER?

For the most part, sensory engineers are either untrained, or trained formally only in art. We asked Jimmy Chen about his formal training in programming, and got this response: "Programming background? Ha ha – you've got to be kidding me. I started out as a hack. And then I got better at it."

While it's relatively sophisticated, the programming knowledge required can still be picked up through hard work, home schooling and lots of trial and error. All you require is a vast thirst for knowledge, an overwhelming need to create things, a total disregard for anything other than "brilliant shit" and an above-average aptitude for mathematical concepts.

That said, programming is all about maths, so if you're deathly afraid of numbers, then maybe writing code isn't for you. Still, to find out, start with something simple. Get ActionScript to do something. Anything. Then build from there.

Sensory engineers all have a feel for what constitutes good code as opposed to bad. Programmers tend to want things to be as elegant and clean as possible, so you should learn what that means.

The best places to begin studying are online, although there are quite a few books coming out these days too. Know your goals, study the basics and practise, practise, practise. If you think that sounds like the road to success in any endeavour, that's no coincidence.

**"WE DO OUR PART
IN SHAPING HOW
COMMUNICATION DESIGN
EVOLVES IN REGARD TO
DIGITAL INTERACTION
AND EXPRESSION"**
ERIK NATZKE,
CO-FOUNDER, FOURM

there's a lot of room for creative freedom in the way elements work. Without exercising creative control over the technical aspects of a Web design project, the designer's vision will have been shared.

The design process can be a whole lot more dynamic when there's just one person involved, so it's no surprise to find many sensory engineers working alone. The obvious hurdle of communication is eliminated, for a start. Even the best working relationships aren't as streamlined as the relationship between the right side of your brain and the left side.

It's rare that something works out exactly as planned once the programming begins. If you're able to constantly revise the visual design to coincide with the changes being made in the implementation, then you're at a clear advantage. If that constant revision entails handing the project back and forth between two people, things aren't quite as ideal.

While this streamlining of the design process holds obvious financial advantages, the quality issues are more important. If a designer is able to work twice as fast, he can either produce twice as much work or produce the same amount of work at twice the quality. Things may not be quite that simple in the real world, but you get the idea.

GIVE AND TAKE

Coding and designing together also offers more opportunity for give and take between the visual design and the technology design, and this unity between visual and tactile is increasingly important. Take the approach of ioResearch, as explained by Josh Ulm. "We're assured that our work is consistent throughout. Everything is planned in unison, and in the end, design and technology work in harmony."

Decisions about typography, page layout, animation and even information architecture are often best made – or modified – on the fly, in conjunction with new directions in visual design or programming and functionality implementation.

Of course, this leads to one obvious question. Should the design drive the programming, or should it be the other way around? The fact that this choice



Brendan Dawes is another designer whose innovative work qualifies him for sensory engineer status. Although he works primarily with Flash, he stretches it with his ideas, rather than being ruled by Macromedia's tool.

even exists is a testament to the effectiveness of sensory engineering over other methods of building websites. Allowing yourself as many choices as possible is crucial to arriving at innovative outcomes.

When teaching students how to make art on a computer, for example, the most vital point to stress is that they should never narrow their ability to make artistic decisions based on technology issues unless it's absolutely necessary. It's why good students keep everything on separate layers in Photoshop, so they can go back and change their mind later.

If you force yourself to limit your creative options unnecessarily, then you've done your design a disservice. If the only reason you're doing the visual design first is because that's what your programmer demands of you, then your options have been limited by factors other than creative choice. Not good.

PAPER DREAMS

It's a fact that most designers – even code junkies – tend to start out with visual ideas. We're artists first, and sketching on paper is often the shortest path from our brains to something concrete. Some

designers will continue with the visuals, settling on typographic systems, imagery, overall style and page structures before they even begin to tackle specifics of animation or implementation.

This can vary enormously, though. ioResearch, for example, begins with a planning stage where the entire project is outlined in minute detail. It then moves on to technology development, where interface prototypes are developed. Only at this last stage of the project does it begin concrete work on the visual design. In this way, it's developing most of the ideas and getting the creative part of the process done in the early planning and prototyping stages.

"Actually, doing programming and design isn't the creative process it is for most other studios," says Josh. "By that stage, we've already blueprinted the hell out of it, and know pretty much exactly how it should be architected, both visually and technically."

For sensory engineers, pretty much anything goes when it comes to process specifics. So is it really necessary to work alone? When is it okay to hand something over to hired help, either on the design or programming side? In theory, as long as creative control is maintained, any part of the process could be handed over and overseen.

Is there any point in having a designer structuring the database and writing the access calls? Probably not. How about programming the output pages? Probably. The question, again, comes back to creative control. If you're letting somebody else make creative decisions, you no longer have a singular vision.

There are many areas of site design that can be outsourced without losing creative control. Look at the way many studios have a single creative director who oversees entire projects while never moving a single pixel or writing a line of code. This may stretch the notion of creative control, yet the point is valid –

"USING THE CODE AS PART OF THE CREATIVE PROCESS MAKES YOU THINK IN A DIFFERENT WAY AS A DESIGNER"
BRENDAN DAWES,
CREATIVE DIRECTOR, MAGNETICNORTH



Josh Davis is tired of being called a Web design superstar, so let's call him a sensory engineer instead.

you don't have to approach every single detail, as long as every detail does fall under your watchful eye.

FUTURE PLANS

It would be easy to claim that designers who understand code and execute all their own work are the future. But that argument misses many of the issues we face in the real world of commercial art.

Many projects are clearly too large for one person to even fully comprehend, let alone execute single-handedly. In these cases, a sensory engineer can be a valuable asset, but specialists are indispensable too.

What's more, there are many projects that hinge on effective visual communication, but have little to do with innovative technology, or even interactivity. Check typographic.com, Jimmy Chen's showcase site. While it's undeniably cutting-edge and extremely powerful visually, it relies little on technical trickery.

Jimmy explains why: "Personally, I don't want to get into scripting hell. I don't believe in gimmicky navigations and transitions, and I don't want to complicate myself with superhero scripting."

While the Web does rely on technology and interactivity, there's certainly a lot more to be appreciated than just those things. Either way, it's clear that sensory engineers have an important role to play in the future of Web design.

Oh, one last thing. That algorithm I was looking for, that calculated distance from the outside of a circle. It's pretty easy stuff, once you realise you're just dealing with right-angle triangles.

Distance = $\sqrt{(x^2 + y^2)}$ - radius

My geometry teacher would be almost as proud as my design teachers. ■

TEXT: GEORGE SHAW / ILLUSTRATION: RODDY LLEWELLYN

MAGNIFICENT SEVEN

THERE ARE A NUMBER OF BIG-NAME SENSORY ENGINEERS. HERE'S WHERE TO FIND SOME OF THEM



www.prystation.com

Few are able to combine complex code with beautiful design as effectively as Joshua Davis. PrayStation is only one of his many digital playgrounds.



www.natzke.com

There's more to look at, and be blown away by, on natzke.com than on just about any other Flash showcase site on the Web.



www.yugop.com

Yugo Nakamura's MONO* crafts site introduced many to the amazing technological design possible with ActionScript. He continues to set the standard that all others are measured by.



www.typographic.com

Jimmy Chen uses Flash in ways that most of us still don't even comprehend. Typographic has always contained some of the best design around... And still does.



www.brendandawes.com

Brendan Dawes is one of the gurus of Flash design and programming. His personal site shows off his work, and also contains a wealth of information.



www.theremediproject.com

Curated by San Francisco-based ioResearch, The Remedi Project has consistently featured some of the most innovative sensory engineering.



www.presstube.com

This is one of James Paterson's personal playgrounds, although it also features the efforts of other designers. Brilliant work oozes from every page.

RESOURCES

www.flashkit.com www.actionscripts.org www.mooock.org
www.flashguru.co.uk www.flashmagazine.com www.flashzone.com