

THE DIGITAL REVOLUTION AND BEYOND



Apple Computer:
The first computer
with a Graphical User
Interface (GUI)

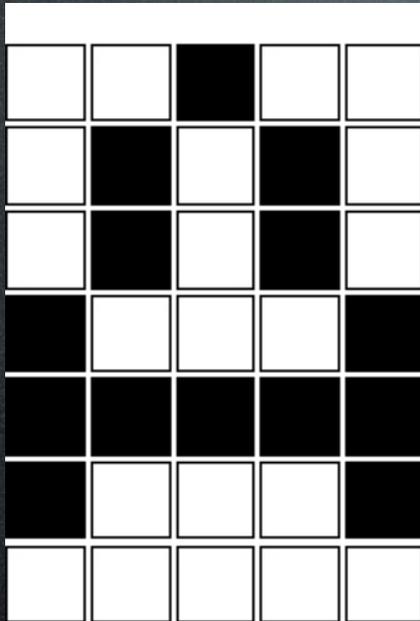


Apple Computer:

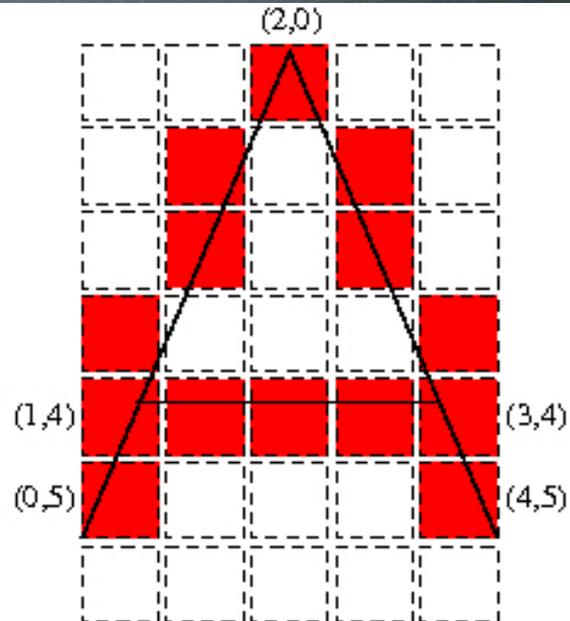
The first computer with a Graphical User Interface (GUI)

Macintosh 128k, 1984

Apple Computer, along with Aldus and Adobe Systems revolutionized graphic design in the 1980s.



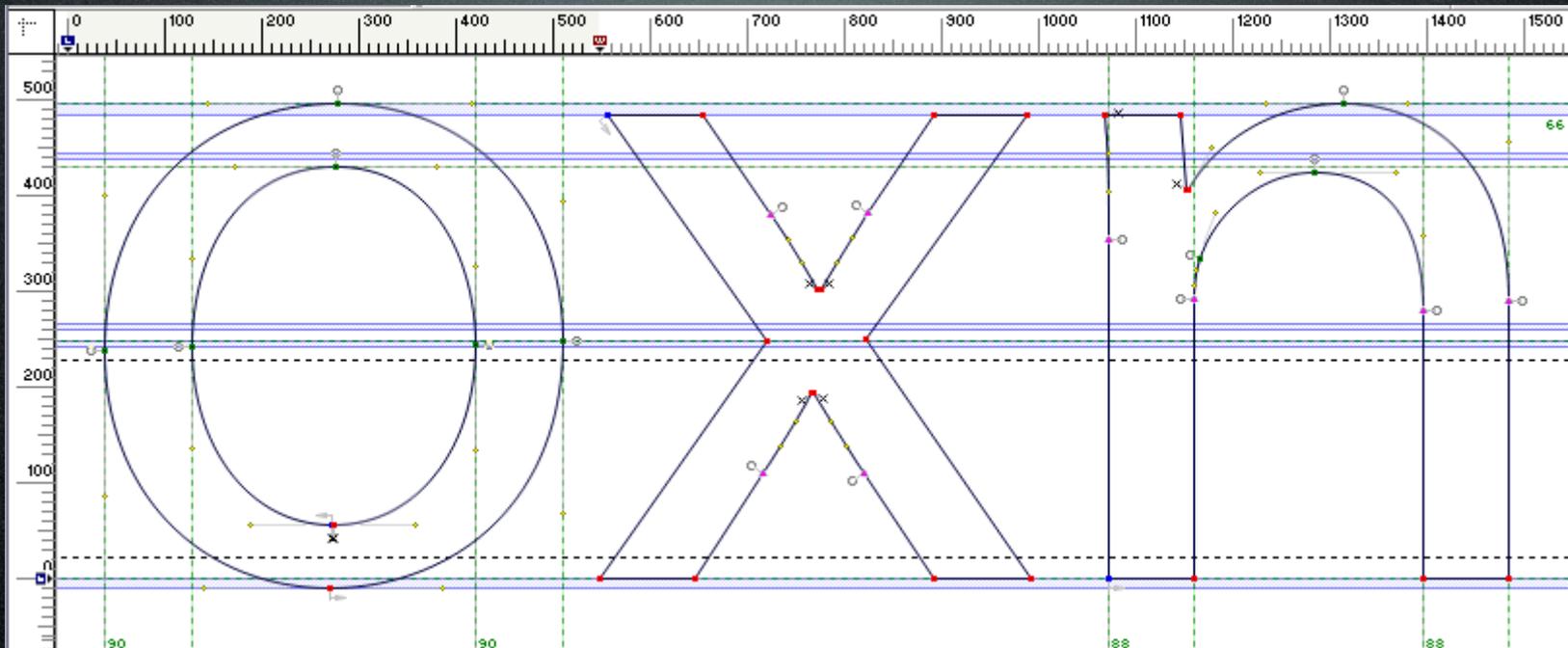
Bitmap-Darstellung des
Buchstaben "A"



Vektor-Darstellung
des Buchstaben "A"
(mit unterlegter Bitmap-
darstellung)

Bitmapped type

Low-resolution images were made up of pixels and could be output to paper at 72 dpi.



Vector type

Adobe Systems introduces PostScript page description language enabling printers to output text graphics and images across platforms. PostScript fonts are vector-drawn.



SPECIAL EDITION

Desktop publishing: It's here 1
 A case of less is more 2
 The medium is the message 3
 How publishing is a snap 5
 and more

IN

a culture like ours, long accustomed to splitting and dividing all things as a means of control, it is sometimes a bit of a shock to be reminded that, in operational and practical fact, the medium is the message.

Marshall McLuhan



PUBLISHING TAKES A GIANT STEP FROM THE PRINT SHOP TO THE DESKTOP

The computer revolution has reached the publishing industry — right down to the "publishing" that is done everyday in your office and mine.

You're not in the publishing business? On your normal business day, you probably write letters, a memo or two, prepare a presentation report. The production of written communications

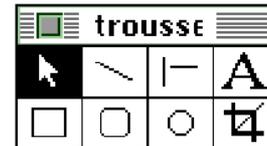
Newsletters definitely fall into the publishing category. So do many of the other documents that businesses produce: annual reports, price lists, brochures, manuals.

For years, we've had few tools to help us produce these communications. The typewriter was a big help. That was followed by the electric typewriter. Just about 10 years ago, by word processing, entering the age of desktop publishing, using word processing, design, and print documents that look like they were never leaving your office.

This special issue of Tomorrow's Office takes a quick look at publishing yesterday and today — its beginning and its future.

YESTERDAY...

By the 16th century, the press had — as one historian has noted — "lost the sleek of novelty without acquiring the lustre of respectability." A scholar named Aldus Manutius changed



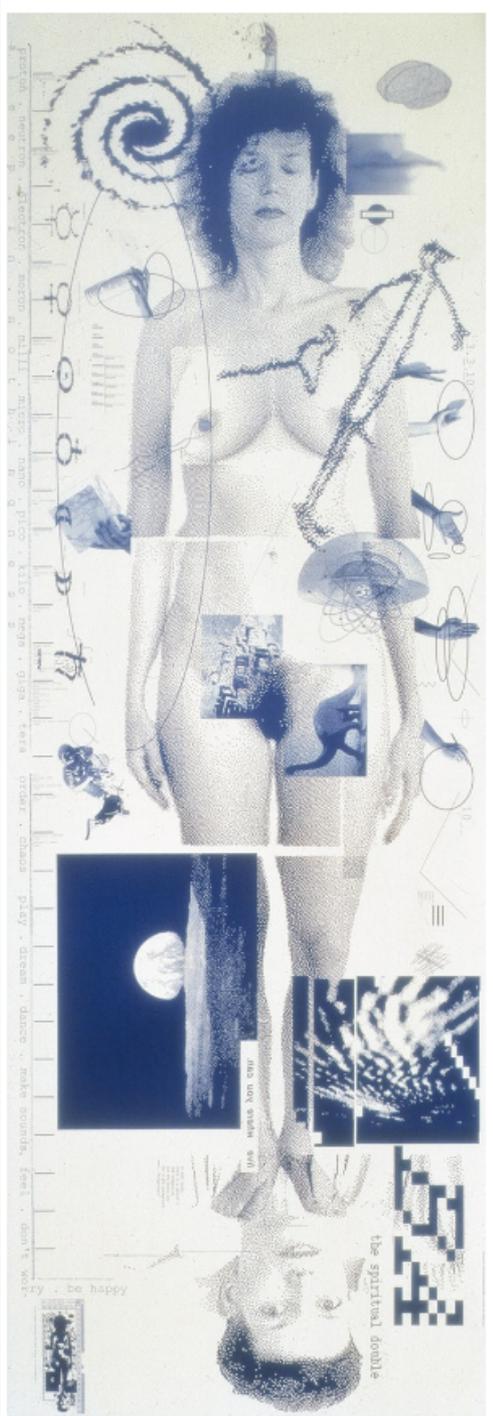
PageMaker® by Aldus Corporation

© 1985, 1987, Aldus Corporation.
 Ranked Hyphenator System ©1986,
 1987 Houghton Mifflin Company. All
 rights reserved.

U.S. Version 2.0a

Aldus Pagemaker

In 1984, a 36-year-old newspaper editor, **Paul Brainerd**, used the PostScript language to develop page design software for newspapers in order to produce ads more efficiently.



April Greiman

One of the pioneers of digital design, Greiman began to experiment with digital collage in this issue for *Design Quarterly* (Walker Art Museum, Minneapolis), composed of a single sheet of paper 2 feet x 6 feet in size.

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EMIGRÉ

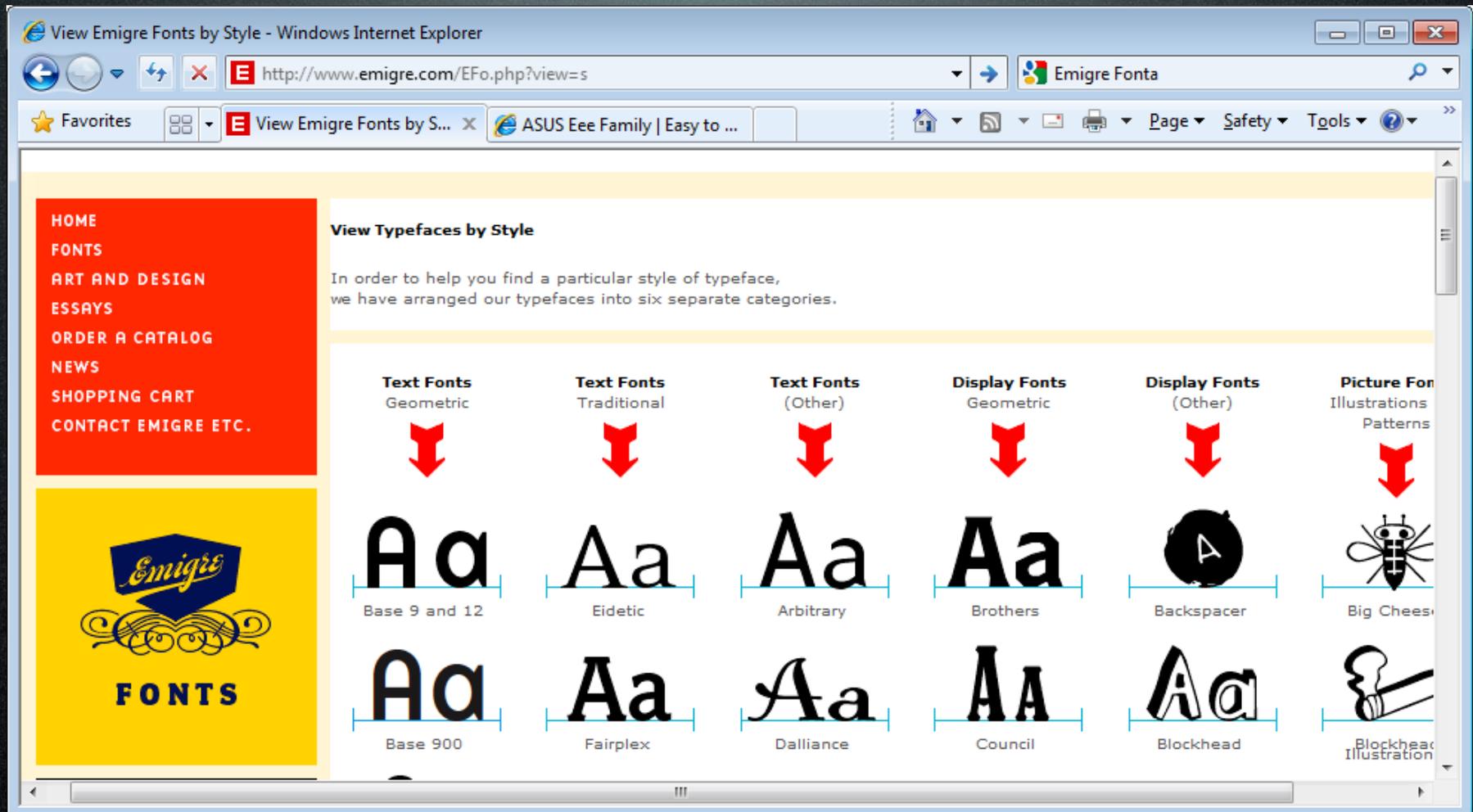
PRICE \$7.95

Graphic Designers and the **MACINTOSH** Computer

Philippe Apeloig **PARIS** / John Weber
COLUMBUS / Henk Elenga [Hard Werken] **LOS ANGELES** / Takenobu Igarashi **TOKYO** / Gerard Kadders & Rick Vermeulen [Hard Werken] **ROTTERDAM** / Rick Vadicenti [Thirst] **CHICAGO** / Max Kisman **AMSTERDAM** / Clement Mok **SAN FRANCISCO** / Eric Spiekermann **BERLIN** / Jeffery Keedy **LOS ANGELES** / Glenn Suokko **MINNEAPOLIS** / April Greiman **LOS ANGELES** / Malcolm Garrett [Assorted Images] **LONDON** / Aad v. Dommelen [Proforma] **ROTTERDAM** / Matthew Carter **BOSTON**

Rudy VanderLans

Another pioneer, VanderLans created a self-published magazine of design called *Émigré* along with fellow designers who had moved to the Bay Area from the Netherlands and parts of Eastern Europe.



Zuzana Licko

Dissatisfied with the limited fonts available in the early beginnings of computer design, Licko used public-domain software to design new fonts. She and VanderLans formed the type company **Émigré Fonts**.

TRAJAN

CHARLEMAGNE

LITHOS

Carol Twombly, 1989

Adobe Systems type

A prolific typefoundry, Adobe featured original designs by Carol Twombly based on historic classical typefaces.



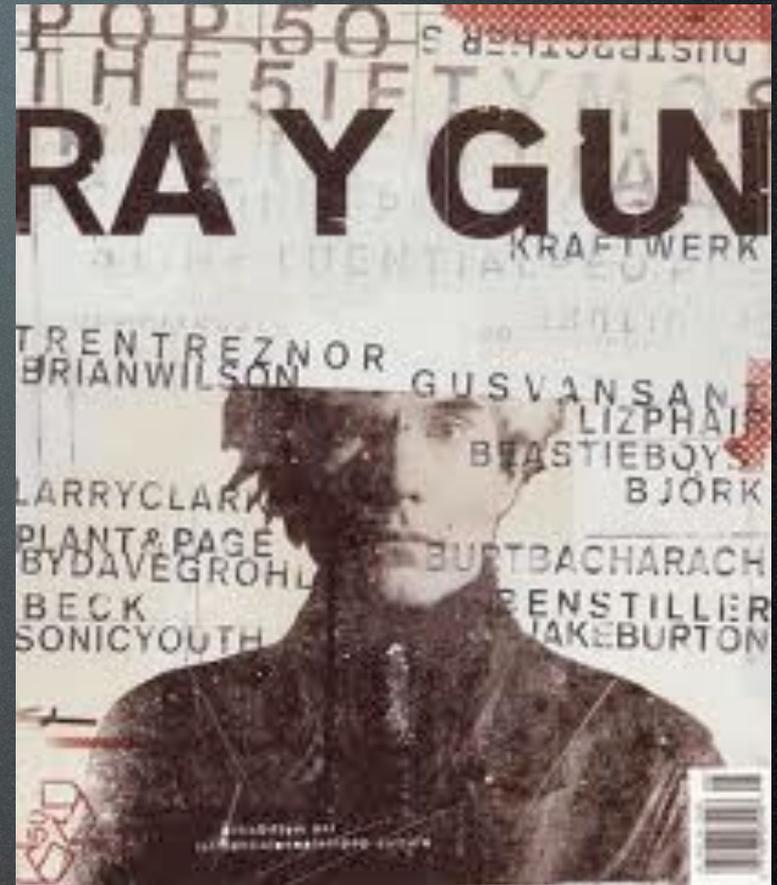
Ray Gun, 1994

David Carson

Former surfer, teacher turned graphic designer, Carson flouted design conventions.



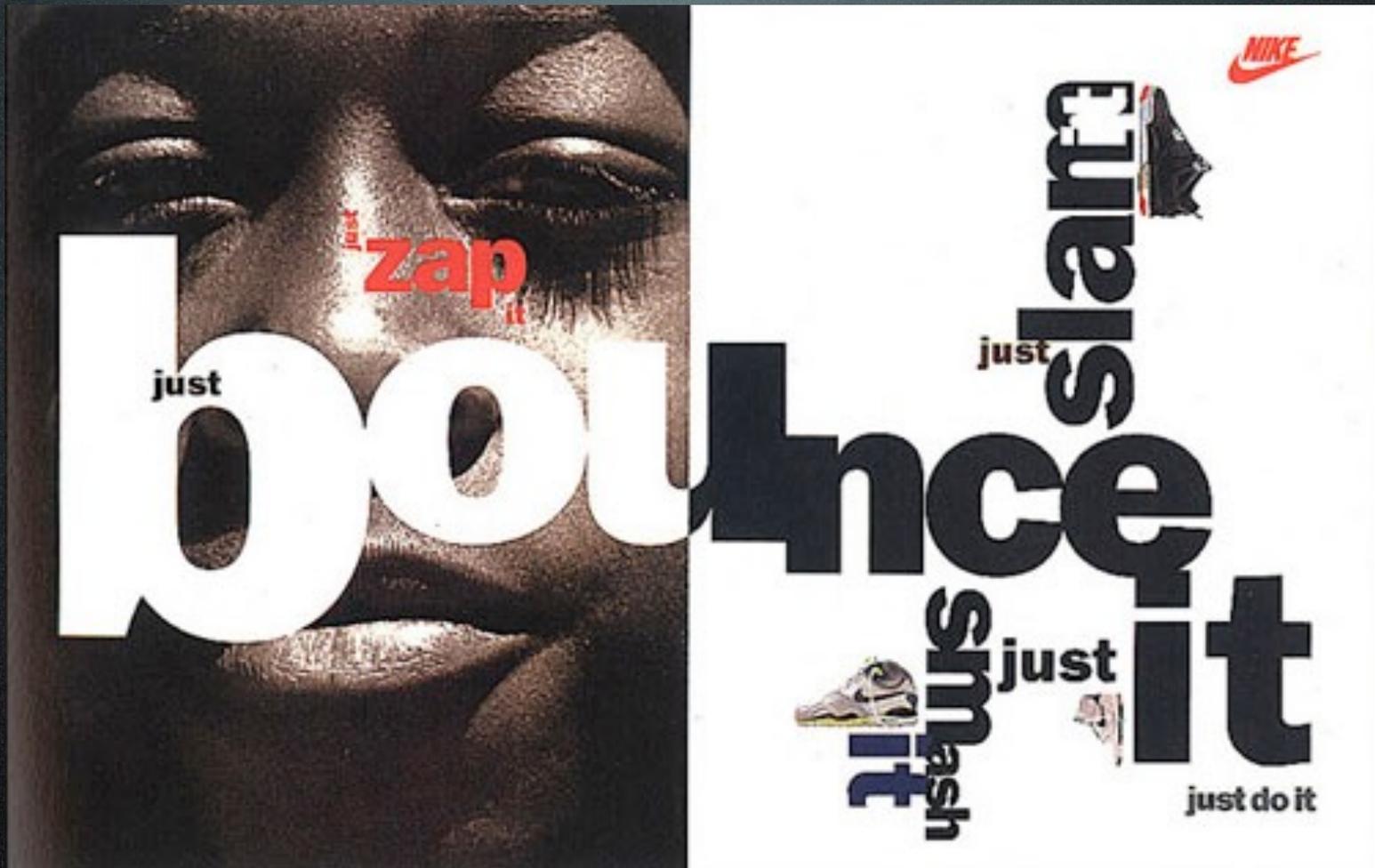
Yale Fall catalog



Ray Gun

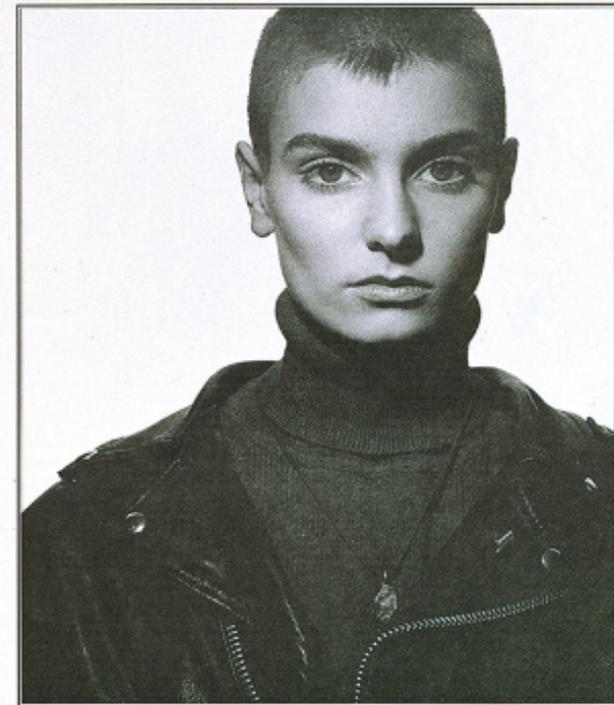
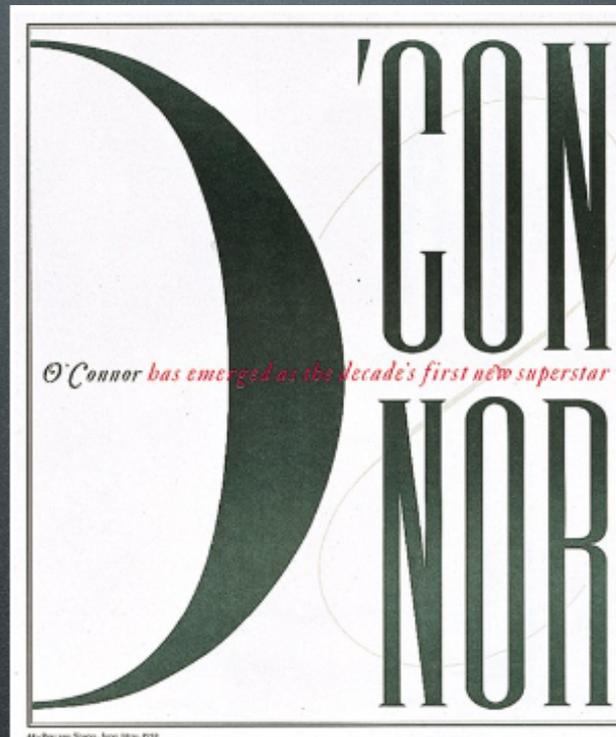
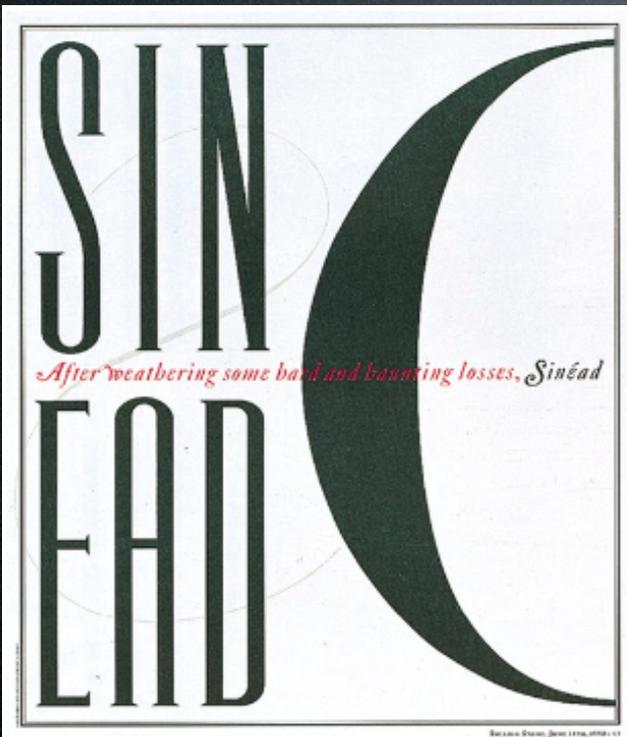
David Carson

Carson used densely overlapped type, reverse leading, erratic letter spacing and text columns jammed together without gutters.



Nike ad

David Carson established his career as art director of *Transworld Skateboarding*, *Musician*, *Beach Culture*, *Surfer*, and *Ray Gun* – In 1996 he left *Ray Gun* to start his own design firm.



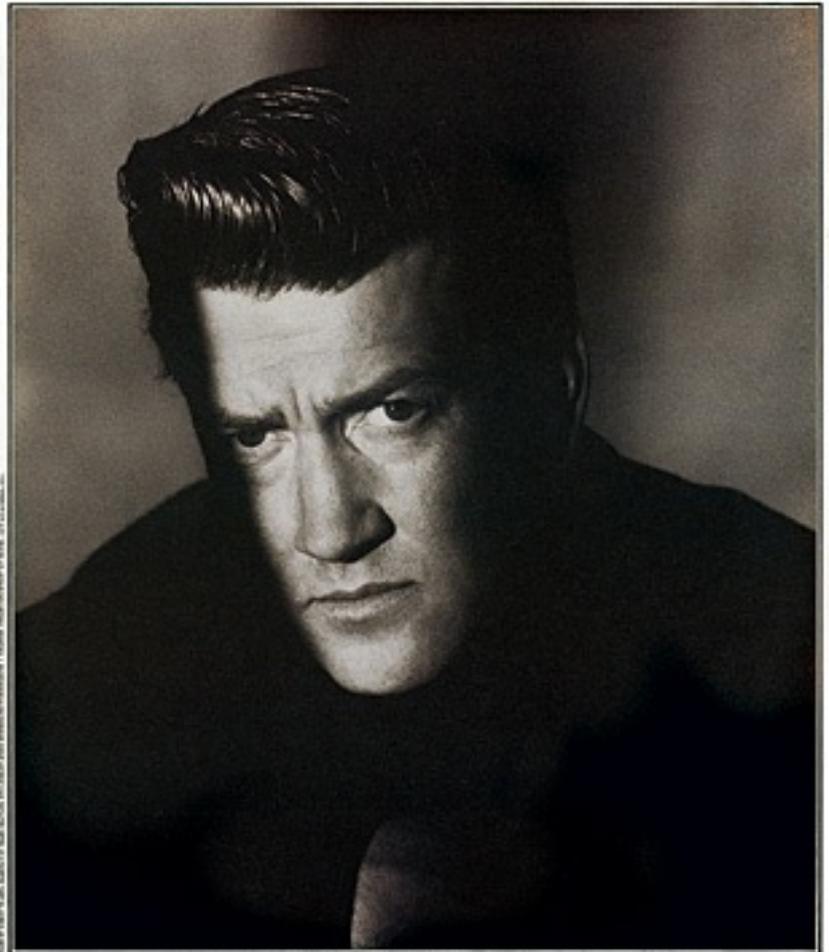
Rolling Stone magazine, 1990

Fred Woodward

Became art director at *Rolling Stone* in 1987, revitalizing magazines with advances in technology and intuitive design sense. This layout was seen as a breakthrough in large-scale display type over an expanding two-page spread.

**THE ROLLING STONE
INTERVIEW WITH
DAVID LY
NCH BY DAVID
BRESKIN**

54 • Rolling Stone, December 1990



PHOTOGRAPH BY ALBERT WATSON

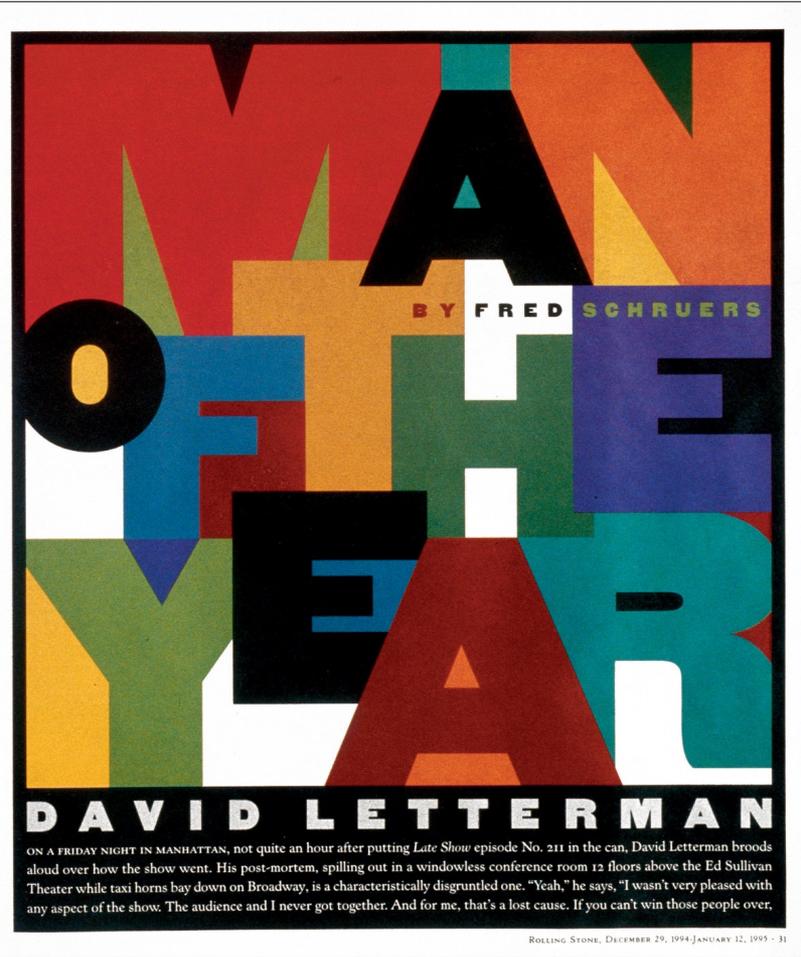
Rolling Stone, 1990

Fred Woodward

The signature style at *Rolling Stone* included a 2-page spread with a typographical treatment on one side and a pure photo play on the other. Editorial content was always framed in the “Oxford Rules”.



ILLUSTRATION BY DAVID COWLES



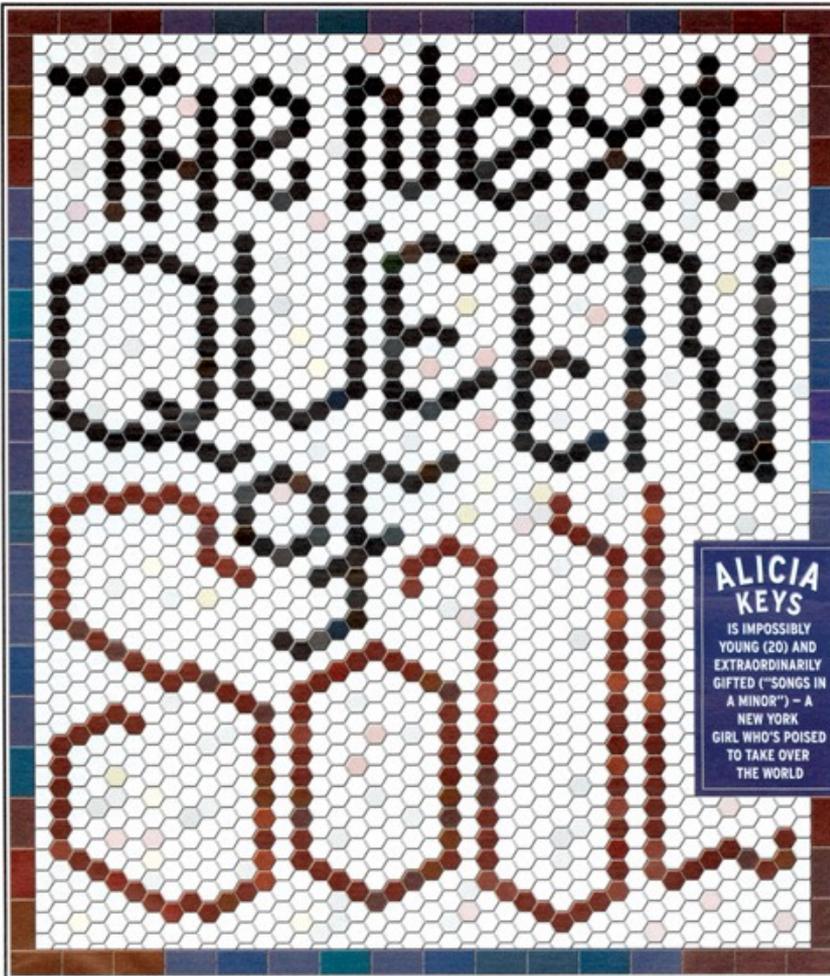
ON A FRIDAY NIGHT IN MANHATTAN, not quite an hour after putting *Late Show* episode No. 211 in the can, David Letterman broods aloud over how the show went. His post-mortem, spilling out in a windowless conference room 12 floors above the Ed Sullivan Theater while taxi horns bay down on Broadway, is a characteristically disgruntled one. "Yeah," he says, "I wasn't very pleased with any aspect of the show. The audience and I never got together. And for me, that's a lost cause. If you can't win those people over,

ROLLING STONE, DECEMBER 29, 1994/JANUARY 12, 1995 • 31

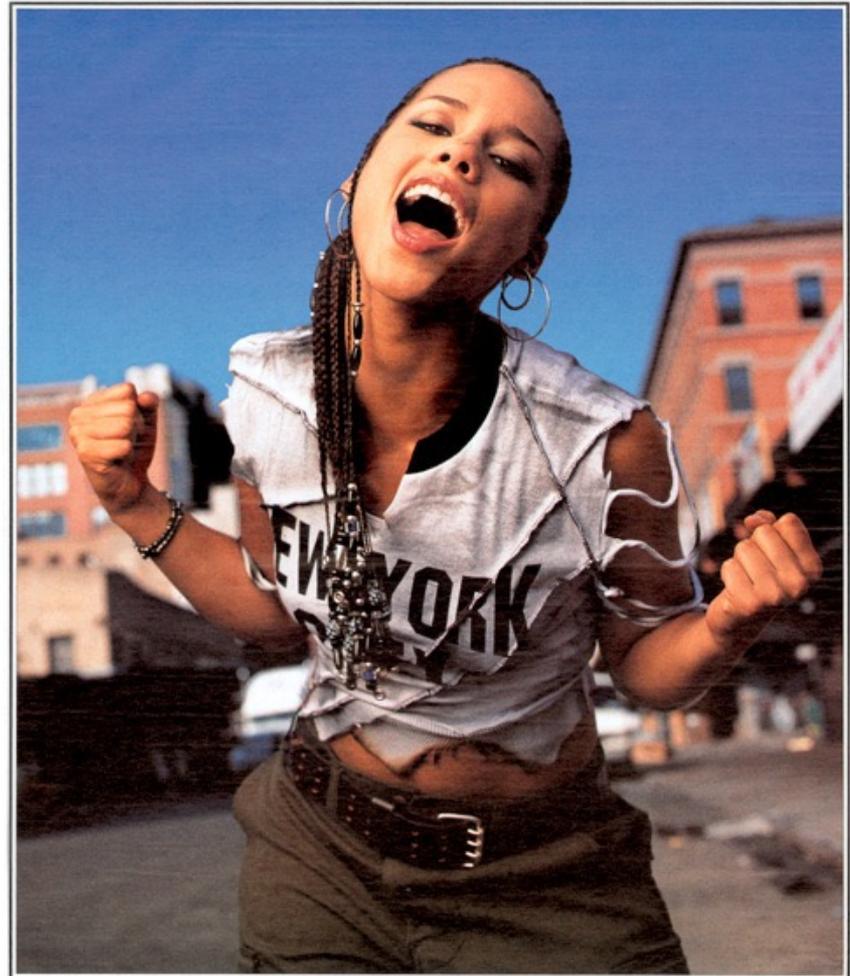
Rolling Stone, 1994

Fred Woodward

Woodward combined traditional art with digital –in ways that never looked as though they were computer-drawn.



82 • ROLLING STONE, NOVEMBER 8, 2001



PHOTOGRAPH BY MARK SELIGER

Rolling Stone, 2001

Fred Woodward

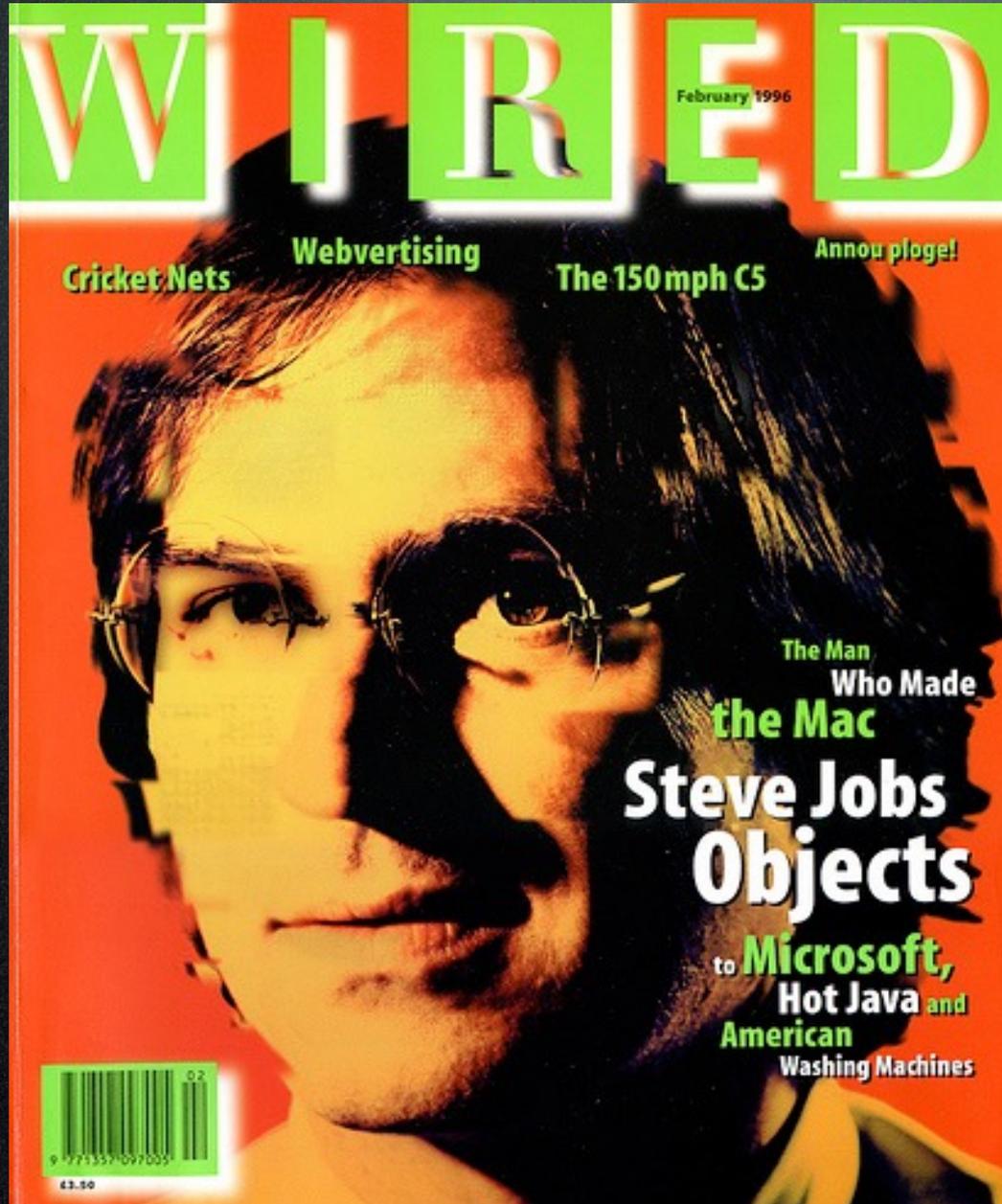
As art director, Woodward gave designers freedom to design whatever they wanted, so long as they respected the photography and the “Oxford rules.” This was to separate the editorial from the ads.



Fred Woodward

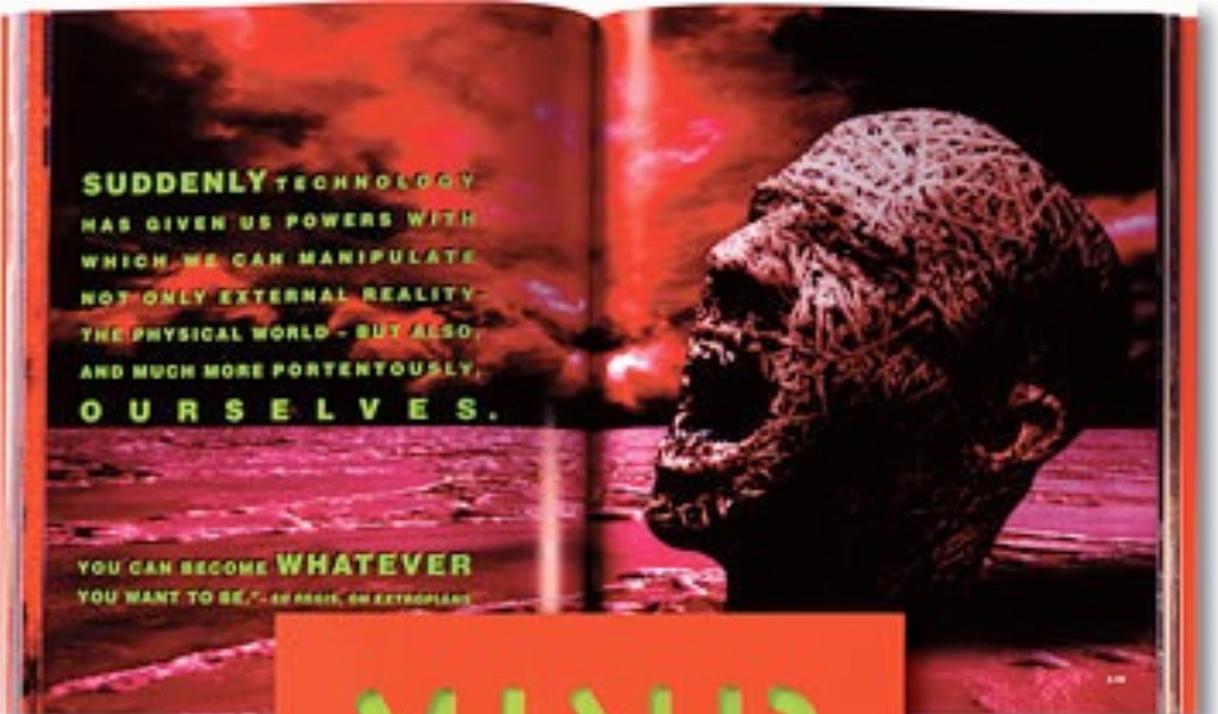
Today, Woodward art directs for *Gentleman's Quarterly* magazine where his innovative style of editorial design continues.

GQ, 2012



**John Plunket +
Barbara Kuhr**

Park City, Utah designers responsible for making *Wired* magazine the technological equivalent of *Rolling Stone*.



SUDDENLY TECHNOLOGY
HAS GIVEN US POWERS WITH
WHICH WE CAN MANIPULATE
NOT ONLY EXTERNAL REALITY
THE PHYSICAL WORLD - BUT ALSO,
AND MUCH MORE PORTENTOUSLY,
OURSELVES.

YOU CAN BECOME **WHATEVER**
YOU WANT TO BE. 7-40 ABBIE, AN AEROPLANE

**MIND
GRENADES
MANIFESTOS
FROM THE
FUTURE**

**John Plunket +
Barbara Kuhr**

Postmodern typography
and fluorescent colors
signaled a new paradigm
for print communication
about the new electronic
media.

He is the intellectual rebel, a pop music star with a brain. David Byrne. Educated at the Rhode Island School of Design as an artist, Byrne has spent several decades fusing creative impulses in multiple mediums.

Although most famous as the leader of the Talking Heads, a trend-setting band in the '70s and '80s known for its "smarts," he also helped bring African and Latin sensibilities into the mainstream on his label Luaka Bop. Byrne has also made waves in video, photography, and filmmaking.

His new solo album captures the multifaceted man. Its title is simply *David Byrne*. Its release this summer is accompanied by personally created music videos and a European and North American road show making the rounds at venues small and large, indoors and out.

Byrne's songs and images are all generated by a man who trusts intuitive thinking - no matter how complex, contradictory, or elusive. His words and works embrace technology and terrorism, heaven and highways, and - more tentatively - digital life.

In an exclusive interview with *Wired*, Jeffrey Goldsmith joins Byrne in his downtown New York office, lined with photographs taken by the man himself. A Scottish-born New Yorker, Byrne is reserved but not shy. He pauses frequently, thinking in silence before he answers, carefully, a few chosen words at a time.

David Byrne talks. David Byrne photos. A *Wired* exclusive.

"All images that appear in the press are manipulated in one way, shape, or form.... If you think what you're seeing is the truth, then you're in for big trouble."

By Jeffrey Goldsmith

your art reach that a lack of artifice can't? Sometimes when things get brightened so that they become somewhat artificial, they become psychological archetypes in a way. They become metaphors. They become more than just what you are in front of you. They stand for something else, and so you are actually dealing with other issues, either issues within yourself or how you relate to the world, to women or things you're going through, how you feel about people, how you feel about things you love or things you hate or whatever. I think it helps you to deal with that.

Is there an example of that which you are working on now, in the videos? In the music?

Videos - some of them are real. They're all a little fantasy. None of them are a portrayal of what you're hearing on the record. I guess [Dean Cain] Costant tried to do that in that Rolling Stones movie [*Sympathy for the Devil*].

Jeffrey Goldsmith (wired@phaxton.com) writes fiction and, fact, and conducts interviews.

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WIRED JULY 1994

Wired: How do you think the role of artists will change in a digital world?

Byrne: Digital images and photos have done for graphic design kind of what samplers and sequencers and the same kind of technology have done for music. In a way, it's taken it out of the hands of the professionals so that anybody can play with it, at least in graphic design, which is great. In those images, of course, we are seeing a lot of stuff, like in news images, that get

manipulated in ways that are harder to detect than they used to be in montages and collages. That used to go on all the time, but now with higher technology it's even harder to detect when something has been subtly altered. So once again we have to be reminded not to trust photos, that they're their own thing. They're not a mirror of reality.

Are you suspicious of this manipulatable quality of photography in a political way?

All images that appear in the press are manipulated in one way, shape, or form, whether they're by choice - by that image being chosen over another - or by cropping, or by digital manipulation. You're being manipulated a thousand different ways, and as long as you are somewhat aware of the fact, then there's not so much to be afraid of. But if you think that what you're seeing is the truth, then you're in for big trouble.

What sort of truth can artifice help

44

13 KODAK GA 6124



David Byrne photographed by Neil Landstram, May 1994, New York

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WIRED JULY 1994

Wired magazine

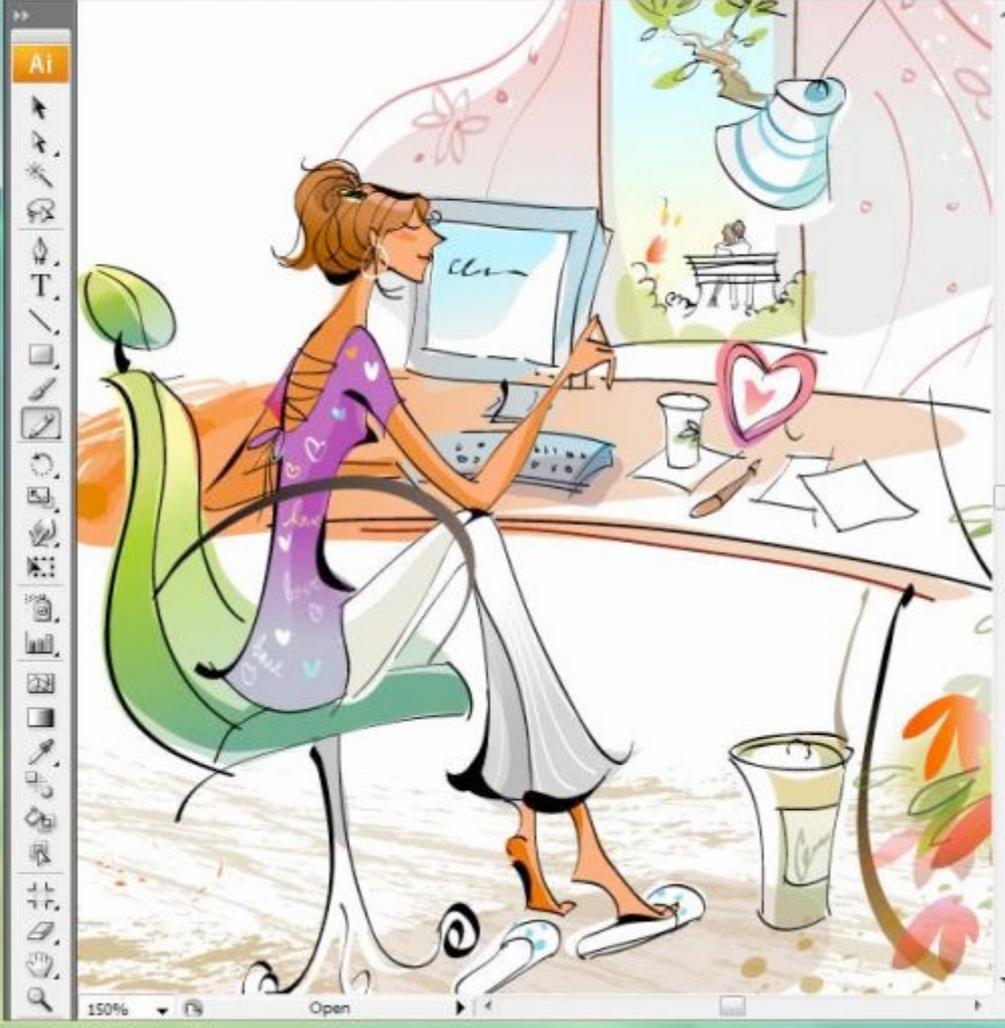
The magazine's postmodern text layouts put the experimental to practical use.

Helvetica Neue 66 pt TT T' T Av Metrics 100% 100% [None] English: UK

90 96 102 108 114 120 126

- Page A1
- Money in the Tank
- Indonesia Fuel Hikes
- Caption
- Money in the Tank

No Selection Stroke: 1 pt Brush: Styles: Opacity: 100 %



Color Guide

C	0 %
M	0 %
Y	0 %
K	0 %

Swatches Brushes Symbols

Stroke Gradient Opacity

Weight: 1 pt

Appearance Graphic Styles

No Selection

Stroke: 1 pt

Fill:

Default Transparency

Layers

- www.vj88.cn
- Layer 1

2 Layers

Navigator File 1.1 2.1 4.1

Stack

- Edges to Black
- Round Blur
- The Look
- Original Image

Library

- WOL Antique
- WOL Back & White
- WOL Camera Tools
- WOL Color
- WOL Darkroom
- WOL Effects
- WOL Film Effects
- WOL Hollywood
- WOL Image Fix
- WOL One-Click Art
- WOL Photo Filters
- WOL Features

Presets

SEVEN DIGITAL DEADLY SINS



Dw File Edit View Insert Modify Format Commands Site Window Help

05-08-2010-Dre

Code

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PROPERTIES

HTML

CSS

SEARCH REFERENCE VALIDATION

A MODERN, MODULAR APPROACH TO STANDARDS-COMPLIANT WEB DESIGN.

THE ESSENTIAL GUIDE TO

CSS and HTML Web Design



- ▶ CREATE CUTTING-EDGE, GOOD-LOOKING, EFFICIENT WEB PAGES.
- ▶ WORK WITH STANDARDS-COMPLIANT TECHNOLOGIES.
- ▶ COMBINE EXERCISES TO FASHION COUNTLESS WEB PAGE DESIGNS.

CRAIG GRANN
FOREWORD BY JON HICKS, HICKSON

friends of Apress
an Apress company

```
<!DOCTYPE HTML PUBLIC "-//W3C//DTD HTML 4.01//EN" "http://www.w3.org/TR/html4/strict.dtd">
<html>
<head>
<meta name="TITLE" content="Learning CSS" />
<meta name="KEYWORDS" content="CSS, Web Design, HTML" />
<meta name="DESCRIPTION" content="A guide to learning CSS" />
</head>
<body>
<div style="background-color: #ffffff; width: 100%; height: 100%; text-align: center;">
</div>
</body>
</html>
```

The perfect beginner guide to learning how to create web pages with CSS

CSS Web Design

FOR DUMMIES®

Streamline and speed up web development as well as avoid common CSS pitfalls

A Reference for the Rest of Us!

FREE eTips at dummies.com



Richard Mansfield

```
<li> <a href="adole
<li> <a href="adole
<li> <a href="adole
</ul>
<br />&nbsp;
</div>
```

What Does HTML5 Do?

Key features of the next Web programming standard.



<STORAGE>

Data can be stored on a user's computer or mobile device, so Web apps work without an Internet connection.



<TYPE>

Web pages can have flashier type with more fonts, shadows, colors and other effects.



<MOTION>

Objects move on Web pages and react to the movements of a cursor.



<GAMES>

Interactive games can run with just a Web browser without installing other software or plug-ins.



<VIDEO>

Video can be embedded in a Web page without a plug-in. Browser makers have not agreed on formats.



<3D>

A technology called WebGL can create interactive 3-D effects using a computer's graphics processor.



<AUDIO>

Audio is played without a plug-in. Browser makers have not agreed on formats.

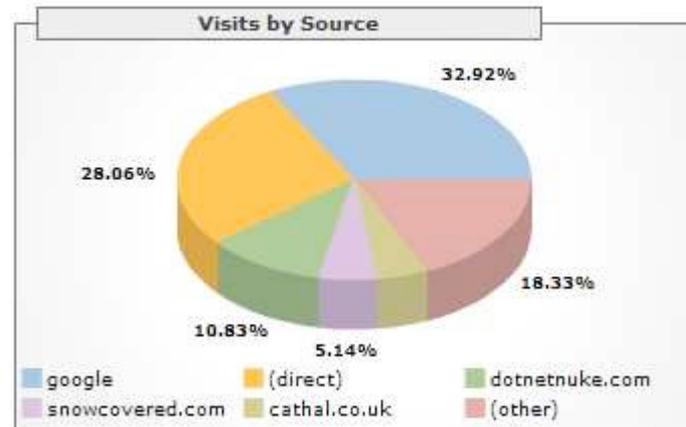
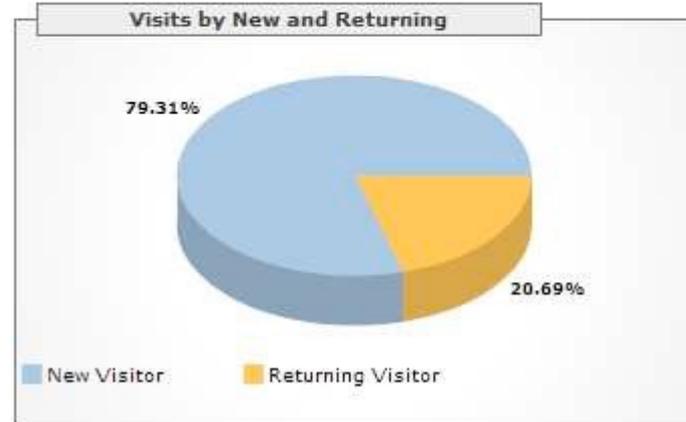
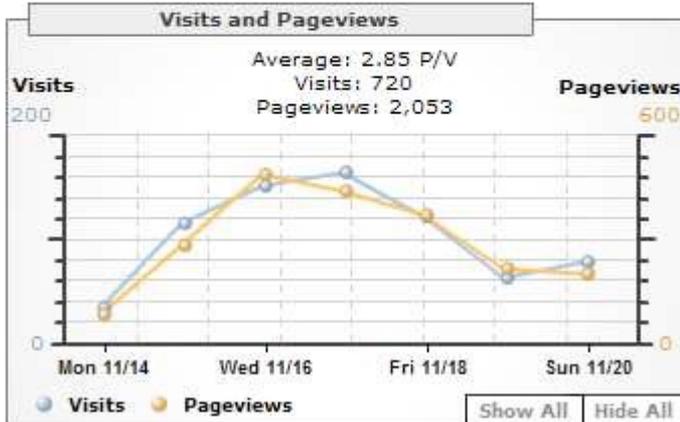


Build it beautiful

The simplest way to create a beautiful website. Start your free trial today.

[WATCH THE CAMPAIGN](#)

[START NOW](#)



Web Design

Design is often an afterthought as developers look for ways to circumvent the search results using links, meta tags and content loaded with popular keywords and phrases.

News

the Clintons' 'mafia' mentality **3:28**

Texas church massacre: Timeline of US church shootings **2:56**

reported missing again

POLITICS
Commerce Department pushes back on report Ross has business links with Putin family

Click-bait

Features & Faces

Car clocked at 278 mph

Where is WWE champ now?

'Tonight Show' pulled for week

Britney: I am heartbroken

Paris sorry for Texas shooting tweet

5 liquors you should refrigerate

Amazing King Solomon's Mines discovery

Man bypasses security in 'concerning' vid

Fake News

Sponsored Stories

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Sponsored | Wallstreet News

Leave The Baby Alone With Dad For 5 Minutes And...
Sponsored | giveitlove

Diabetes Type 2 Symptoms - Learn early Signs of Diabetes
Sponsored | Yahoo! Search

Thinking Of Buying New Glasses? Go to This Site First
Sponsored | GlassesUSA

Ad Content by outbrain

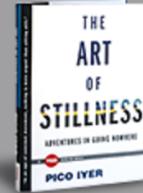


Dig deeper into ideas with original books from TED

“In an age of distraction, nothing can be more luxurious than paying attention. And in an age of constant movement, nothing could be more urgent than sitting still.”

– PICO IYER, AUTHOR OF *THE ART OF STILLNESS*

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Alejandro Aravena

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Be an opportunity maker



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Humble plants that hide surprising secrets



Alessandra Orofino

It's our city. Let's fix it



Jeremy Heimans

What new power looks like



Haas&Hahn





MEASURING



THE



UNIVERSE



04:16

HD

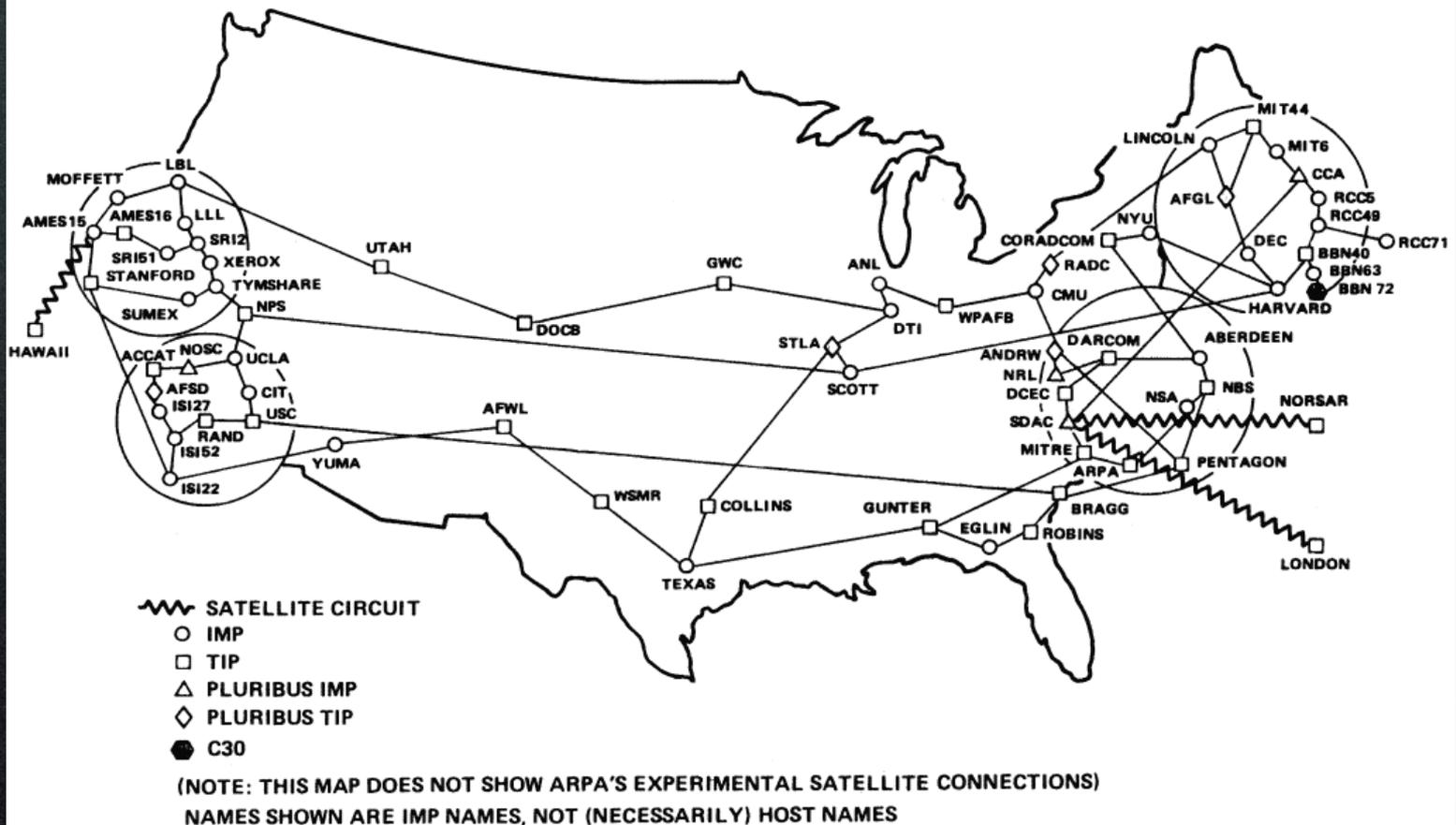
[Measuring the Universe on Vimeo](#)

Jenny

I'M A DIGITAL DESIGNER from Sweden living in San Francisco, where I work as a Senior Designer at Ueno. With a background in advertising, my strength lies in website and app design.

If you want to know more about me, my work or if you're a Nigerian prince who wants to offer me a lot of money, feel free to contact me on jennykines@gmail.com.

ARPANET GEOGRAPHIC MAP, OCTOBER 1980



The Internet

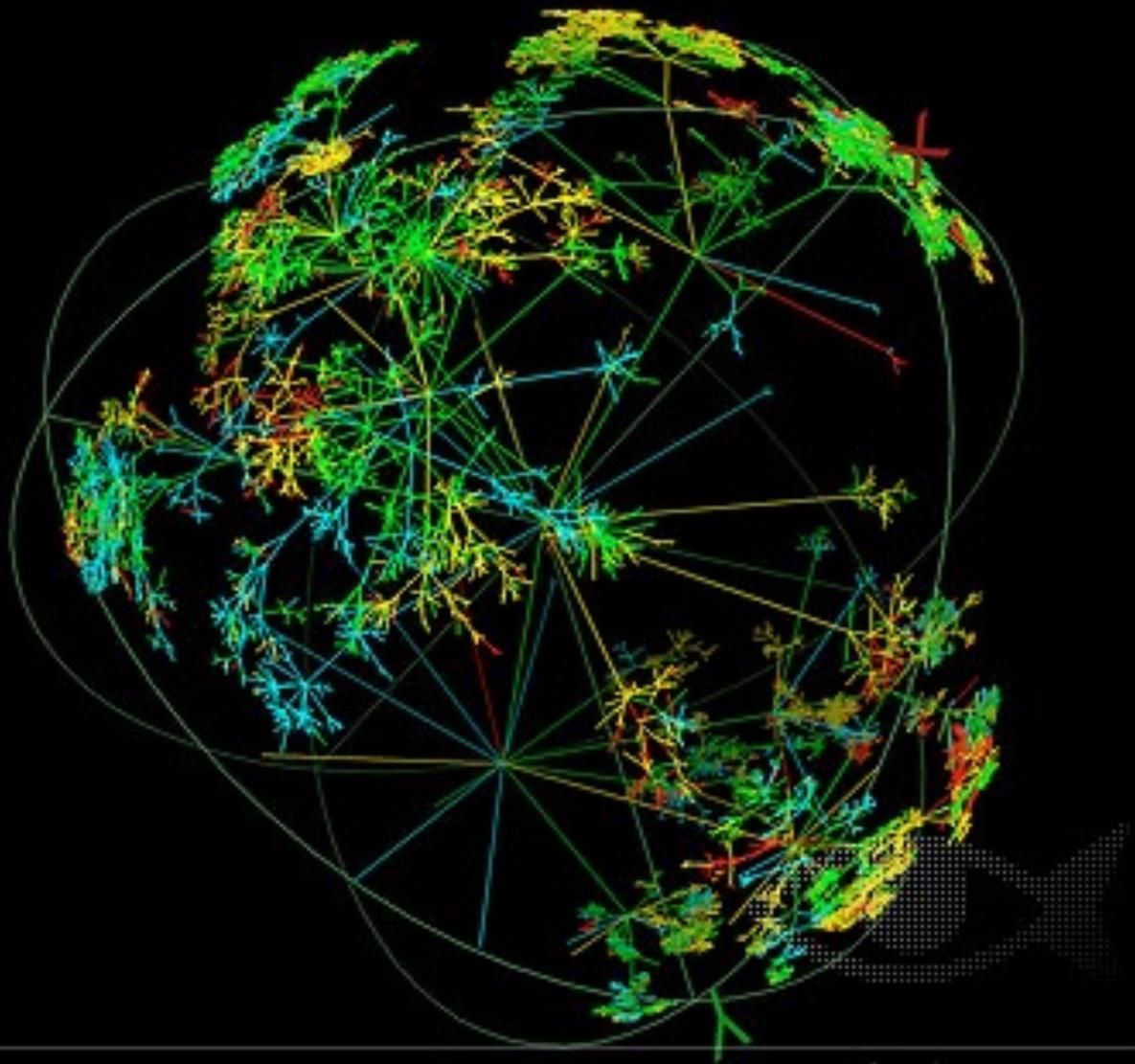
A vast network of computers connected by cables and satellites. Started in the 1960s by scientists at the US Dept. of Defense Advanced Research Project Agency (DARPA).



The Internet

The ARPAnet was a system of super computer sites which needed a way to transfer data between agencies and Universities doing research. Later, more sites were expanded under the National Science Foundation.

*Billion Dollar Brain
with Michael Caine, 1967*

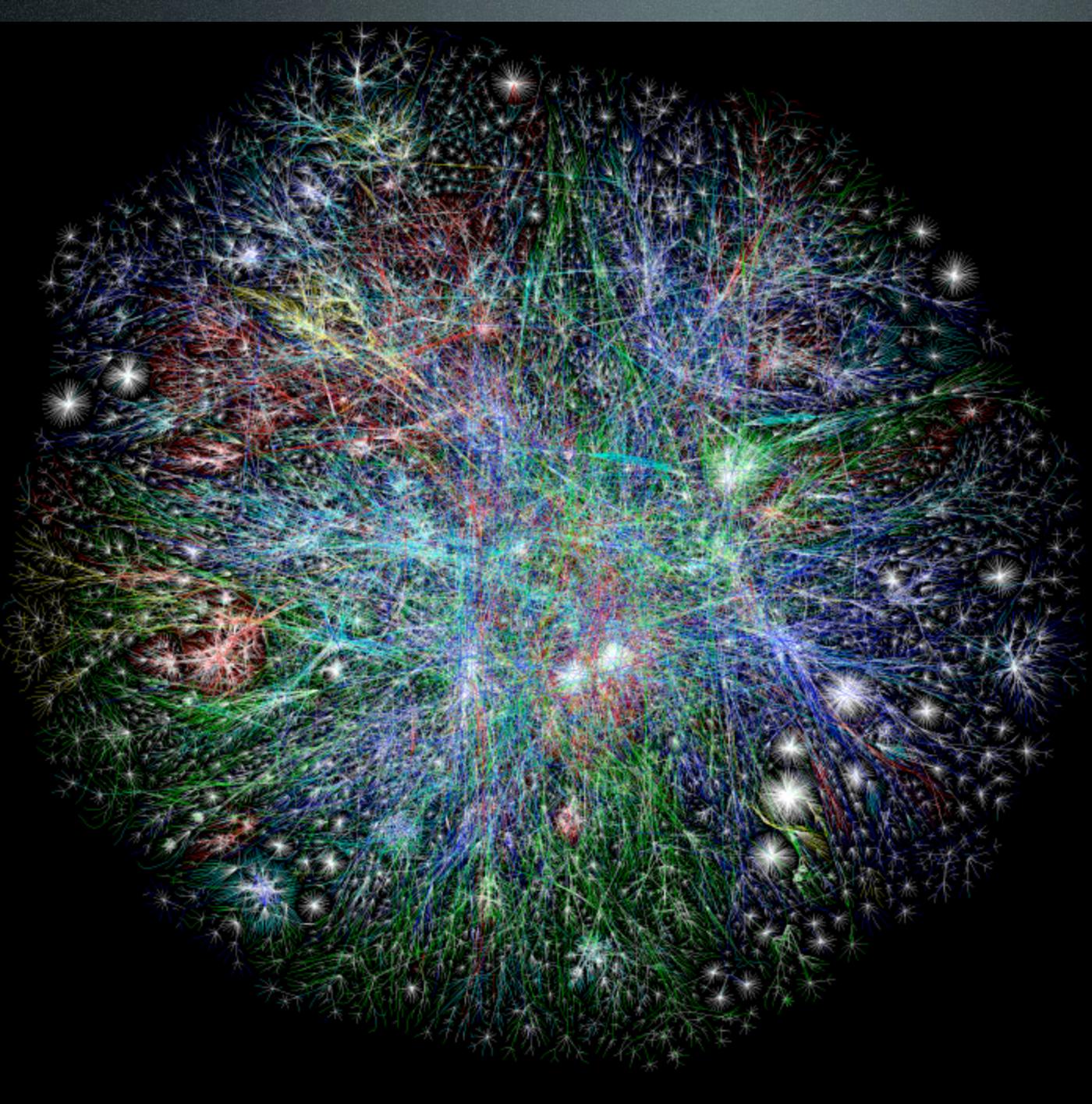


www.dexigner.com

The Internet

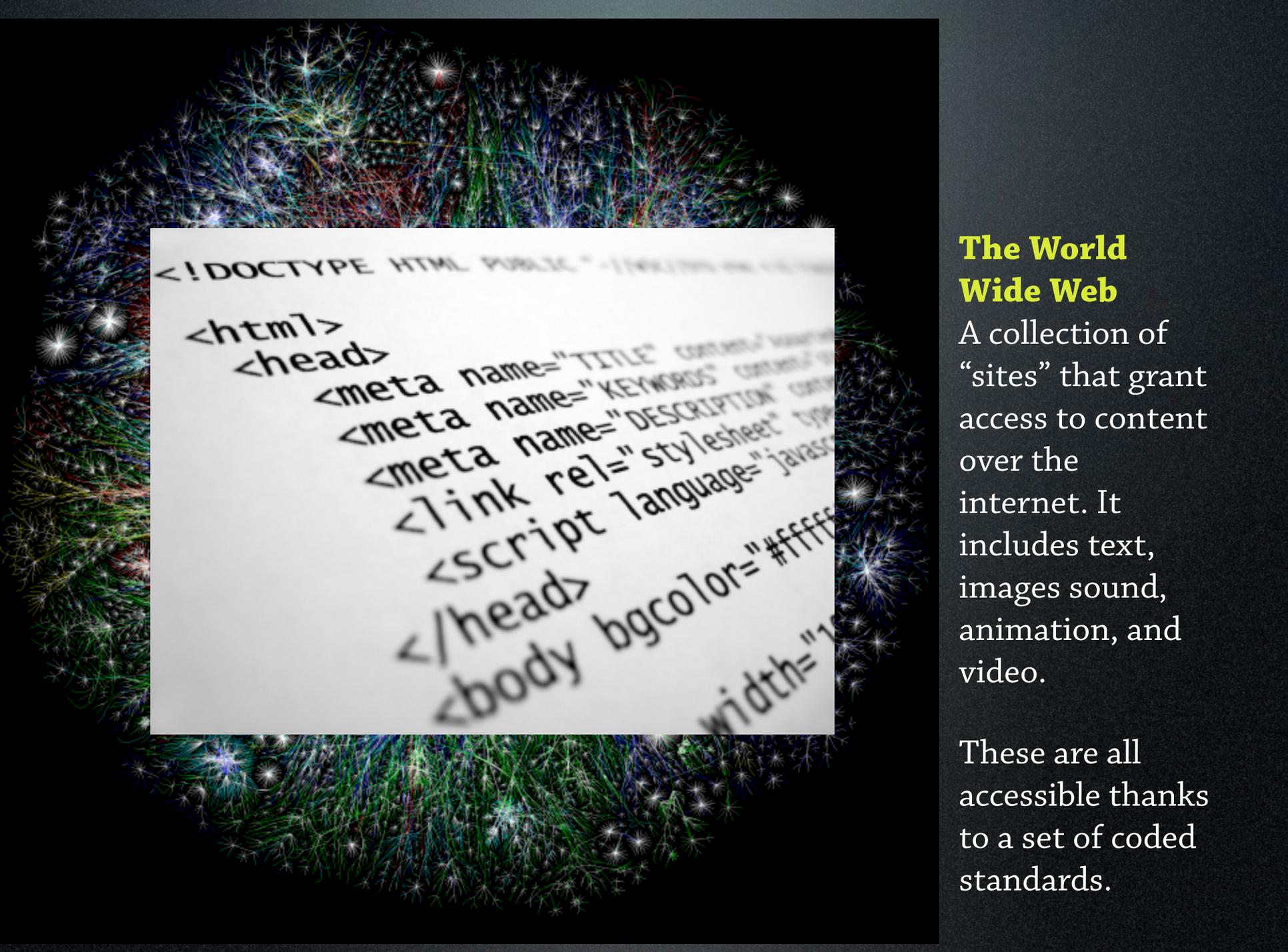
In 1991 Congress granted access to public schools, 2-year colleges and business organizations.

By 1997 it had 30 million users, 100 nations, and more than 150 million web pages.



The Internet

In 1995 the internet was opened to everyone. By 2005 there were 800 million users and 8 billion websites.



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<html>
  <head>
    <meta name="TITLE" content="World Wide Web" />
    <meta name="KEYWORDS" content="World Wide Web" />
    <meta name="DESCRIPTION" content="World Wide Web" />
    <link rel="stylesheet" type="text/css" href="style.css" />
    <script language="javascript" type="text/javascript" src="script.js" />
  </head>
  <body bgcolor="#ffffff" width="100%">
```

The World Wide Web

A collection of “sites” that grant access to content over the internet. It includes text, images sound, animation, and video.

These are all accessible thanks to a set of coded standards.



The World Wide Web

Invented in 1990 by physicist Tim Berners-Lee at the European Organization for Nuclear Research (CERN) in Geneva, Switzerland.

```
josh@laptop:~$ telnet en.wikipedia.org 80
Trying 208.80.152.2...
Connected to rr.pmtpa.wikimedia.org.
Escape character is '^]'.
GET /wiki/Main_Page http/1.1
Host: en.wikipedia.org

HTTP/1.0 200 OK
Date: Thu, 03 Jul 2008 11:12:06 GMT
Server: Apache
X-Powered-By: PHP/5.2.5
Cache-Control: private, s-maxage=0, max-age=0, must-revalidate
Content-Language: en
Vary: Accept-Encoding, Cookie
X-Vary-Options: Accept-Encoding;list-contains=gzip, Cookie;string-contains=centralauth_Token;string-contains=centralauth
```

```
<div class="rowOne">
  <div class="leftSide"><a href="index.html"><a href="about-me.html">About Me</a> <
  <div class="clear"></div>
</div>
<div class="rowTwo"><div class="rightSide2"><span class="style6
  <div class="clear"></div>
</div>
<div class="nav"><a href="index.html"><img src="img/icon-house
```

http://en.wikipedia.org/wiki/Uniform_Resource_Locator

The World Wide Web

HTTP:

Hypertext Transfer
Protocol

HTML:

Hypertext Markup
Language

URL:

Uniform Resource Locator

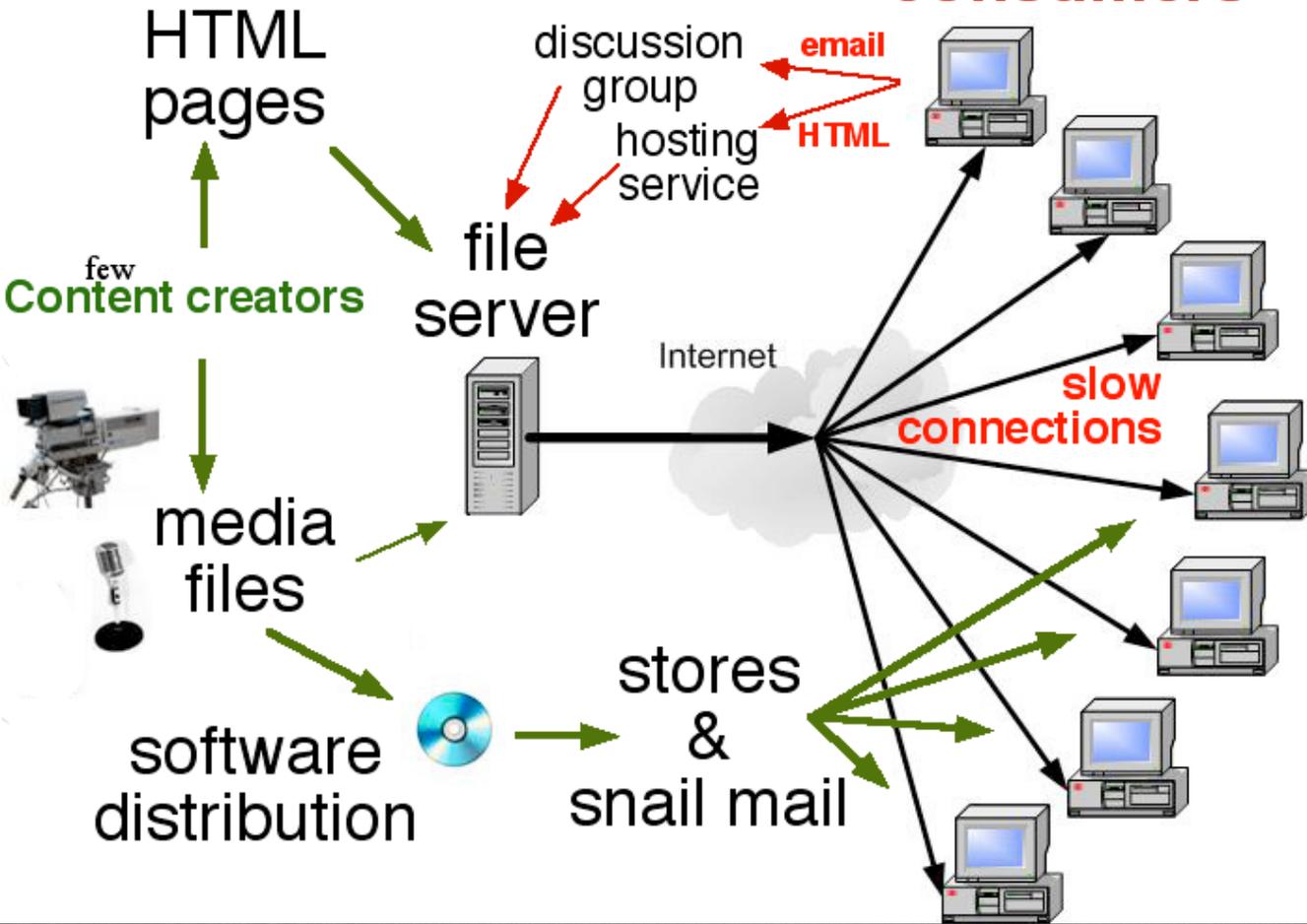


The World Wide Web

In the 1990s the phrase *“information superhighway”*

was used to describe the huge network of sites with global access to the internet.

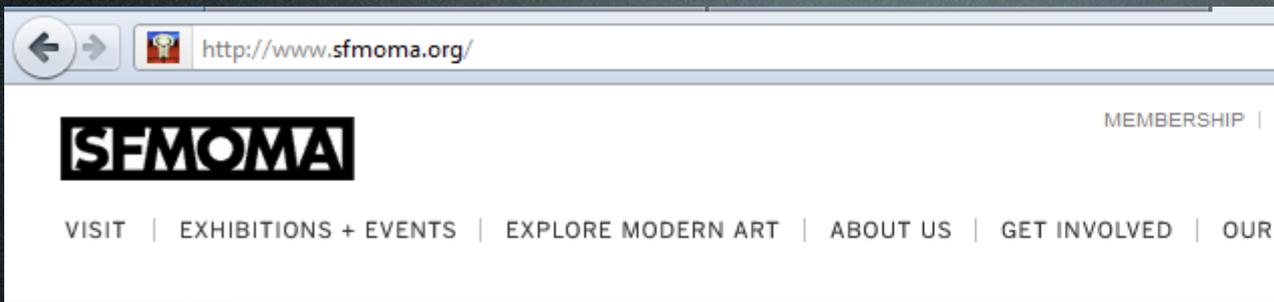
Web 1.0



Web 1.0

1993-2000

- Dial-up modems
- 50k bandwidth
- Static web pages
- Personal web sites
- Brochure-like information
- eCommerce sites

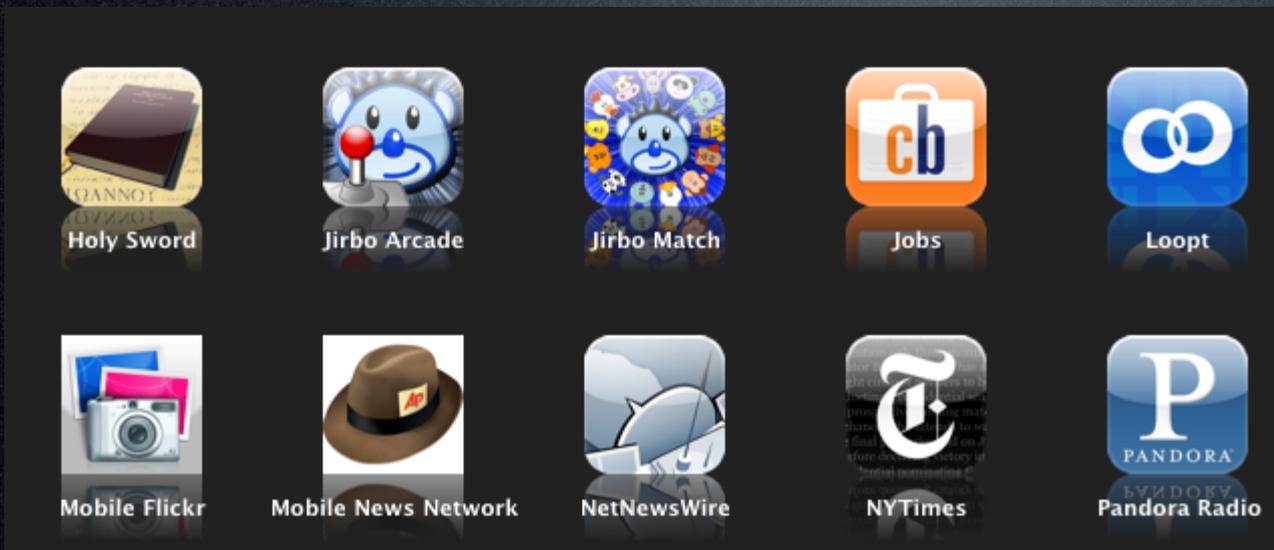


Web 2.0

2000-present

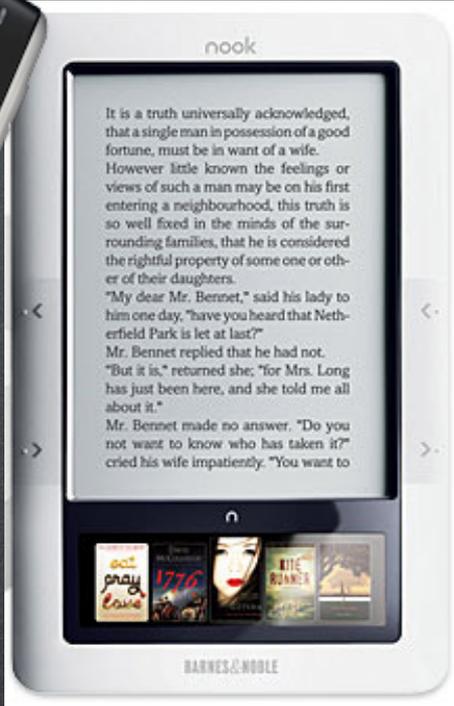


- High speed connections
- Multimedia
- Dynamic web pages
- Social networking
- Interactive
- Blogs
- Wikis
- Apps

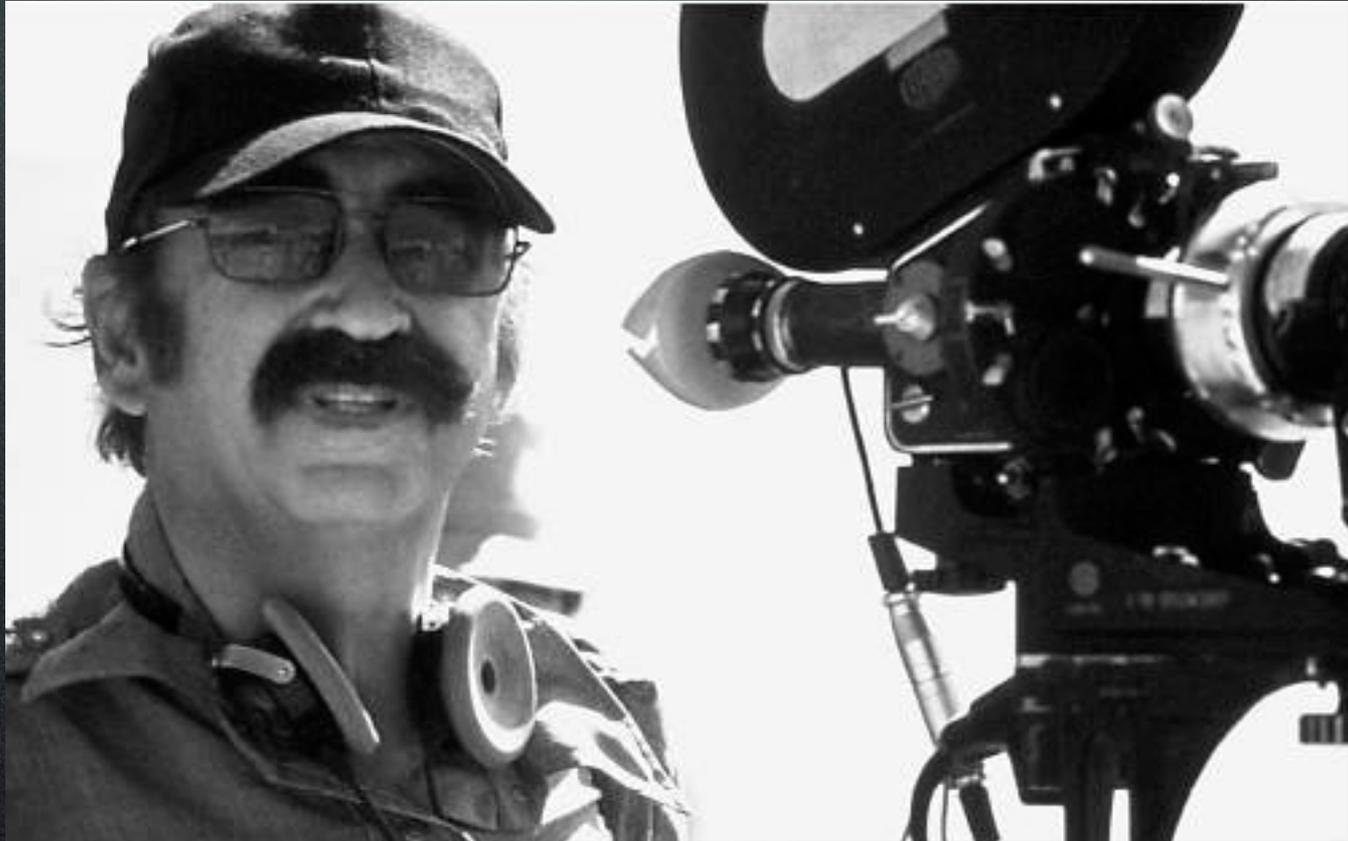


Digital devices

- Cell phones
- Smart phones
- iTouch
- Tablets
- Laptops
- Netbooks
- Computers
- Watches



Saul Bass



Motion Graphics

Saul Bass is often called the “Godfather of motion graphics”. The term first appeared in the 1990s although graphic designers had been creating animations for TV and film for decades.

[Saul Bass](#) *The Man with the Golden Arm*, 1955

[Robert BrownJohn](#) *From Russia with Love*, 1963

[Kyle Cooper](#) *Spider Man* main titles, 2002

[Kuntzel and Deygas](#) *Catch Me if You Can*, 2002

[Go2Productions](#) *Credential*, Corporate video demo, 2013

[Troika Design Group](#) Demo Reel, lynda.com

