

# Eames Overload and the Mystification Machine

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The IBM Pavilion at  
the 1964 New York  
World's Fair

Photograph by Walter Reed, courtesy of Leon Reed.

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The 'People Wall' inside the Information Machine Image © 2011 Eames Office, LLC (eamesoffice.com)

Every uncomfortable wait you've had in a severe airport seat, every plastic school chair you leant back on, every retro chair you paid too much for probably has, at its essence, an Eames chair design. You might recognise their famous 'lounge chair', which was not particularly modern looking, but its DIY assembly, macho quality and savvy marketing gave it a popular edge that still remains hard to beat. Their biggest money-spinner was their mass-market furniture for Herman Miller.

Charles and Ray Eames, a husband-and-wife team who ran the Eames Office, didn't just do furniture; they produced a cluttered assortment of exhibition displays, architecture, games, knick-knacks, experimental films, books and even splints for injured WWII soldiers. Excessive in their output, Charles and Ray's work often had an overloaded quality: packed with detail, spilling with content.

One of their most fascinating departures from chairs was their collaboration with IBM: the straight-laced

and immensely successful business-machine company. IBM had its own culture of organised labour, with a strict black-suit dress code and an almost fundamentalist dedication to the CEO, Thomas Watson (first Snr, then his son Thomas Watson Jnr, from 1952). Such was the employees' dedication to their CEO, the IBM choir sang this song:

Our voices swell in admiration  
Of T. J. Watson proudly sing  
He'll ever be our inspiration,  
To him our voices loudly ring  
The IBM will sing the praise  
Of him who brought us world acclaim  
As the volume of our chorus raises  
Hail to his honored name.

These were good Company Men. However, by the 1960s IBM felt a need to market itself with a little more zeal – after all, large data processors were still

obscure machines, which only computer enthusiasts and machine operators understood. And it wasn't just dull-looking calculation machines that gave IBM an image problem. One of its main clients was the US Government, for whom IBM worked on Cold War military technology, including missile systems. Even worse – wasn't it IBM who helped the Nazis collate their statistics?

IBM took its public-identity problem so seriously that it hired a designer, Eliot Noyes, giving him an enormous budget to clean up and popularise the company's image. But Noyes hardly had plans to Ronald-McDonaldise IBM. Instead, he hired the closest thing America had to a mid-twentieth century avant-garde: architects Ludwig Mies van der Rohe, Marcel Breuer and Eero Saarinen, graphic designer Paul Rand, and the Eames Office.

In 1961, IBM commissioned Charles and Ray to create 'Mathematica', an exhibition about the history of computers, from the Jacquard loom to 1960s data processors. Despite the Eames Office's chic, modern reputation, the exhibition was hardly a modernist affair: its panels were crammed with overlapping images and text, giving the eyes no place to rest. The success of 'Mathematica' is questionable, but IBM was excited by the collaboration and continued to commission the Eameses.

Despite IBM's ongoing association with the Eameses, it wasn't all holding hands and singing songs. The IBM team were modernists without the baggage of social reform, and while Charles and Ray's approach concurred with the modernist ideal of 'progress' through technological development, their projects had a playful interest in decorative aesthetics and American folk traditions. This was not the hard-edge modernism IBM was growing used to from its other architects and designers. Nonetheless, the Eames Office had a two decade long relationship with IBM. What's most interesting about this relationship was their collaboration on the IBM Pavilion at the 1964–65 New York World's Fair.

It was the last of the great modern world's fairs, a final rallying cry for universalism and technological progression, before America's loss of innocence in the late 1960s. The theme, 'peace through understanding', perhaps contradicted its hardly subtle imperialist

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dedication to 'man's achievement on a shrinking globe in an expanding universe'. Everywhere, the rhetoric of individual freedom abounded – except for the fact that the pavilions represented not individual expression but, most often, corporate identity: General Motors, Coca-Cola, General Electric, Bell Telephone. Through gaudy 'big thing' pavilions, nations and companies vied for visitor attention. As one of the biggest tech corporations on the block, IBM had to pull its weight in the phantasmagoria stakes.

The IBM Pavilion building was not exclusively an Eames project. It was designed by Kevin Roche, John Dinkeloo & Assoc., in association with the Eames Office. Roche & Dinkeloo was Eero Saarinen's firm, and before his death in September 1961 he began plotting ideas for the IBM Pavilion with Charles Eames. Charles and Eero wanted the pavilion to be 'unarchitectural'. The intention, from the start, was to produce an entertaining spectacle filled with surprise, awe and marvel. Education, it would seem, was secondary, despite what IBM's press releases said. The IBM Pavilion had to meet the expectations set by the spectacular and grandiose corporate pavilions at former world's fairs, and so the design needed to strike a balance between references to pavilions of the past and references to the future possibilities of computer technology.

What resulted was a large ovoid theatre hovering above a one-acre-wide Plexiglass canopy, supported by steel 'trees'. The use of old-fashioned fairground decoration underneath this colossal steel and concrete structure produced a clumsy see-sawing balance between the past and the imagined future. The large structure was covered in raised lettering – the IBM logo repeated almost 3,000 times over its surface – and the egg shape was supposed to resemble an IBM Selectric Typewriter ball.



Image © 2011 Eames Office, LLC (eamesoffice.com)

The steel trees supporting the Plexiglass were also quite peculiar. Instead of applying the geometric simplicity, hard lines and expressive beams of International Modernism – the architectural style that IBM embraced in its offices and manufacturing facilities – the steel tree supports in the IBM Pavilion were decorative and whimsical. If anything, they recalled the engineered iron cages of nineteenth-century train stations and exhibition halls. Ah, let's be frank: it just looked like scaffolding holding up a giant egg.

Below the egg, in the IBM exhibition space, one computer translated Russian into English. On another, you could type in your birthday, and it would spit out a card telling you what momentous events occurred on that fateful day. Of course, these were simple computer calculations that bore little resemblance to the data-processing capacity of the IBM computers that were actually being used in business, the military and space

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exploration. You could peruse recycled sections of the crowded 'Mathematica' exhibit and watch mechanically driven puppet shows (run by a computer!). You could even hang out at IBM's 'typewriter bar', a great-aunt-once-removed to the Apple Store we know today.

Like many corporations at the 1964 Fair, IBM was making a dramatic statement, and crowds waited in lines for hours to be subjected to corporate propaganda of the most enjoyable kind. In the promo material provided by the Eames Office and by IBM, the pavilion was intended to demystify computers and relate computer processes to the problem-solving methods applied in everyday life. But the reality of the pavilion's structure, exhibitions and film screenings did quite the opposite. These elements compounded to produce a cacophonous visual and physical experience, pleasantly overwhelming the visitor, rather than demystifying computers and IBM.

The Eames Office produced the pavilion's typography, exhibition displays and puppet shows, as well as *Think*, a 30-minute multi-screen film projected onto 22 separate screens inside the ovoid theatre, a cavernous space known as the Information Machine. In the April

1964 issue of the magazine *Popular Science*, Henry B. Comstock described the IBM Pavilion in detail, and it is worth quoting at length because Comstock is bonkers:

From a distance, it looks like the storage tank for the Festival of Gas. But as the New York World's Fair visitors draw nearer, they find themselves in a people trap – IBM's wonderfully zany exhibit pavilion, featuring the Information Machine. It's really a theatre that sits atop a forest of 45 stylised, 32-foot-high sheet-metal trees. Their cleverly dovetailed branches support 14,000 gray and green Plexiglas leaves, forming a continuous, one-acre canopy. You can join a couple of thousand others who are queuing up on a complex of catwalks suspended above a shallow pool. The ramps lead to a 45 degree tilted grandstand, holding 500 spectators. Eventually you'll take your place on what people call the 'people wall' . . . An MC in white tie and tails comes gliding down to you in a 'bucket'. He promises that in the next 12 minutes you'll learn that computers make use of everyday methods we all use in our daily lives to solve complicated problems . . . In a little less than a minute, you're hydraulically hoisted 53 feet into the main theatre. This puts you in the core of the gunite-sprayed steel egg, about the size of a Navy blimp – 115 feet long, 89 feet deep, 58 feet from base to top, which is 90 feet high. There, 14 slide and movie projectors bombard nine random-size screens with a very busy show. If the 30-ton people wall returns you to earth still wondering why data-processing machines are useful, it's no fault of IBM's . . . While the Information Machine dominates the show, you will find the cluster of little booths and exhibits under the canopy equally entertaining . . . Puppet shows are fashioned after 18th century prototypes. But the little figures, activated by air cylinders, magnets, cranks and gears, are strictly 1964. So are some skits, which add up to a data machine strip tease.<sup>1</sup>

*Popular Science* offered a celebratory description of the pavilion; it seems the author could not help but

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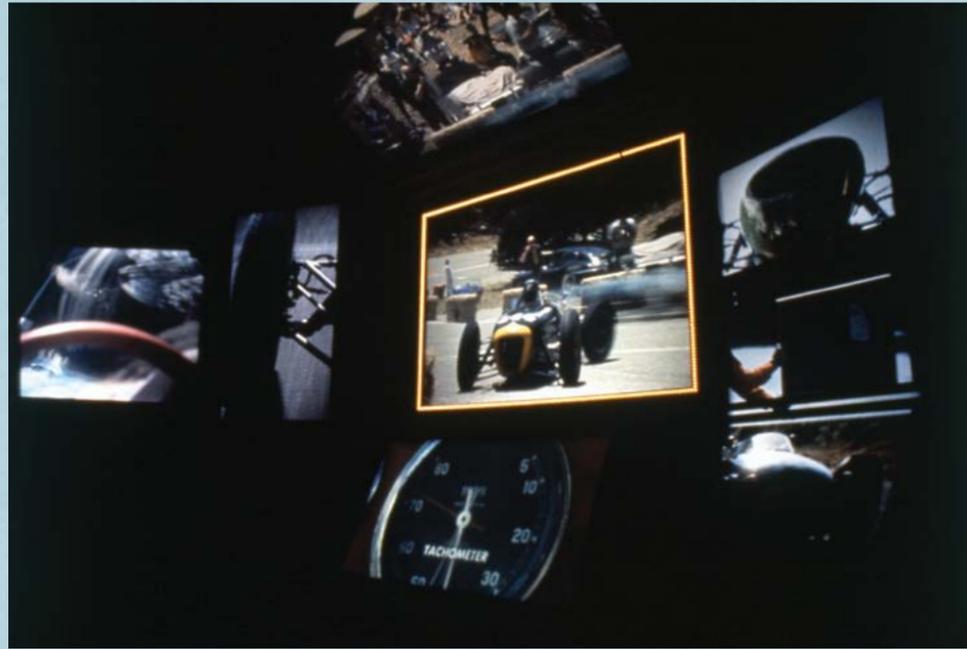
use terms such as 'people trap' and 'bombarded'. This leads us to consider the possibility that the experience of the 'People Wall' could be a little frightening. You, and hundreds of others, wait for hours in a queue then crowd onto a mechanical wall. Once you're lifted inside the egg, you *cannot leave* and are held captive for the duration of the fast-paced, flashing images of *Think*.

Other architectural critics have wondered about a latent threat inherent in *Think*.

Beatriz Colomina framed the experience in visual terms: 'The screens wrap the audience . . . The eye cannot escape . . . the eye has to jump around from image to image and can never fully catch up with all of them.'<sup>2</sup>

Ben Highmore, on the other hand, was keen on how the visitor was literally *inserted* – like a computer chip, or, more appropriately, a punched IBM card – into the belly of the Information Machine. He thought this mechanical insertion rendered the experience mechanistic and non-human. Highmore had a point, and the Marshall McLuhan in us liked how he focused on the *content* of the *form*. But it all got a bit melodramatic:

This removal of the spectator from an Earthly realm into another world is carried out so systematically that the IBM visitors are quite simply lifted out of the world . . . it unsettles everyday embodied experience . . . by situating the body as a mechanic component within a larger assemblage.<sup>3</sup>



Wait, how long had the Otis Elevator been around? The 1850s? And then there was the motor vehicle. Perhaps our IBM Pavilion punters were all right with a bit of mechanical kinetics.

Returning to the 'official line' offered by IBM and the Eameses about the purpose of the Information Machine and *Think*, in a 1963 press release by IBM pressman Arnold Lerner, the claim made for the whole pavilion was that it would 'show that computer systems use simple human-scale concepts and techniques'.<sup>4</sup> Yet the experience immersed visitors in a mechanical fantasyland, where an MC in a tailcoat guided them through a series of flashing images on 22 screens, all while standing in an apple-picker.

The Eames Office claimed that the goal of *Think* was 'not to teach the visitor how computers operated but to demonstrate the relationship between information processing by computers and everyday problem solving'.<sup>5</sup> The tail-coated MC in *Think* announced to the audience that the Information Machine, 'brings you information in much the same way as your mind gets it – in fragments and glimpses – sometimes relating to the same idea or incident. Like making toast in the morning'.<sup>6</sup>

*Think* provided a number of examples, including coaching football, predicting the weather,

cheque-writing, city-planning and planning the seating at a dinner party.<sup>7</sup> It identified problems, turned them into pictures, applied systems and detected patterns – then it told you to bring an umbrella and sit Susan next to Michael. *Think*'s catalogue described the challenge the hostess faced:

seeing that the guests sit next to people they enjoy, and at distance from those they might not get along with . . . As she shifts people around to find the best arrangement, the hostess makes notes and finally draws a rough diagram of the seating plan . . . until she finds the right combination.<sup>8</sup>

Thanks to *Think*, wedding-party planning became an industry all of its own. Computers failed in even this basic lady-task. In fact, it didn't succeed in any of the ways it set out to; instead, it made computers more baffling and seemingly counterproductive than before.

The practice of engaging designers to create futuristic and extravagant corporate pavilions had been going on since the nineteenth century. By the 1930s, these fairs consistently showcased gigantic, extraordinary structures. General Motors' monumental streamlined

exhibit and ride, *Futurama*, in the 1939 New York World's Fair had set the bar impossibly high and, like the incessant challenge of the Olympic Games, the 1964 Fair was in danger of not being proclaimed as the 'greatest ever'. In any case, by 1964 the essential concept of a 'World's Fair' was getting tired, and the fair was met with critical reviews. Despite the naysayers, public attendance was high, and by the end of the second season a whopping 51 million people had trampled through.

For IBM, its 1964 pavilion served as a popularising, soft-sell of the corporation, aimed at Luddite members of the American public while simultaneously indicating to the government that IBM was a company that had a squeaky-clean image; it was trustworthy and educational. More importantly, the Eames Office's

style worked for IBM because the pavilion was a massive *distraction* – it was never about educating the public in any meaningful sense.

Despite the line pushed by IBM and the Eames Office, the IBM Pavilion didn't really humanise computers or bring a computer corporation down to a swallowable, capsule-sized form. The *form* of the Information Machine – together with the overloaded exhibition displays and the unconvincing content of *Think* – used mechanical concepts and scales, thus producing surprise and awe, rather than the demystification of computers. And, that's *exactly* what the audience was there for. They didn't want to learn about a corporation, or about mathematics, or even about computer punch cards. The good people of America just wanted to go on a ride. ■

Many thanks to the Eames Office and the Reed family for providing such great photography

For a full bibliography, please visit [www.seizureonline.com/scifi/further-reading.html](http://www.seizureonline.com/scifi/further-reading.html)

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