Since the 1980s, Nancy Paterson’s practice has ingeniously melded contemporary art, feminism and rapidly developing digital technologies. A pioneering artist and scholar in the realm of electronic media, she is the creator of numerous new media works, including interactive video installations, telerobotic...
sculptures, net-art, 3D computer-graphics and immersive environments. In a circular and self-reflective fashion, she employs new technologies to examine and critique their impact on our lives. She especially “engages with the implications of new media on women” and explores the ways in which “marginalized groups might wrestle control from the dominant techno-narratives.”¹

Through both her art and her writing, including her groundbreaking essay “Cyberfeminism”, first e-published in 1992, this Toronto-based artist has consistently challenged herself and other women to claim new and emerging technologies for themselves. Paterson has also advocated awareness of the systemic biases built into such technologies. “At the heart of Cyberfeminism is the notion not to accept as inevitable the current applications of new technologies which impose and maintain specific cultural, political and sexual stereotypes, and [the belief] that the empowerment of women in the field of new electronic media can only result from the demystification of technology.”²

Since childhood, spent in Ontario and Florida, Paterson has fearlessly explored whatever mechanisms and technologies she could access. As a young artist in the 1980s, she “designed video matrixes with complex switching systems to control the logic and presentation of imagery”³ and in the early 1990s, she “began working with laser disc technology and custom-designed micro-controllers to develop interactive projects such as Bicycle TV, The Machine in the Garden, and The Meadow.”⁴ At the same time that she was exploring these cutting-edge technologies, she was also employing in her installations “labour-saving” and “beautifying” appliances of the 1950s — machines designed and manufactured by men for use by women and speaking directly to socially prescribed gender roles. Examples include a washing machine in Wringer/Washer TV, an electric hair-curling machine in The Medusa Project (Autobiography), and a vibrating belt massager in Ex(or)ciser. By juxtaposing mid-20th-century “automation” with late 20th-century video capabilities and new media forms, Paterson draws parallels between the social implications of technologies past and present.

Responding to advancements in Internet technology and access, Paterson’s interests turned to Internet-based installations in the 1990s, and in 1995, she began work on the telerobotic sculpture Stock Market Skirt, now in the collection of the Surrey Art Gallery. In 2000, she employed computer graphics and VMRL to produce a complex and detailed 3D environment online, at the time one of the most advanced works of its kind.⁵ While artist-in-residence at Seneca College of Applied Arts & Technology, she also produced a short video, Coppelia, from a dance robotics project that utilizes ORAD virtual set technology. Recently, her ixmaps project “geographically visualizes the routes taken by end users’ URL requests over the internet” in order to “render visible to users interesting aspects of the internet core related to everyday usage.”⁶

Paterson pursued undergraduate studies in literature and philosophy at the University of Toronto and art studies at the Ontario College of Art, where she first began exploring video and new media. While a student at OCAD, she co-founded Toronto’s first media gallery, the ArtCulture Resource Centre (ARC). She earned a master’s degree in education from Brock University and the Ontario Institute for Studies in Education, and a Ph.D. in Communications and Culture from York University. Following that, she won a SSHRC grant to pursue postdoctoral
research in “the new shape of the public internet” at the University of Toronto. As well as being a practicing artist who has exhibited and screened her media works nationally and internationally, Paterson is an Associate Professor at OCAD University and Facilities Coordinator at Charles Street Video, an artist-run media access centre in Toronto. She has presented guest lectures around the globe, and has published numerous papers, both online and in print media.

Stock Market Skirt is one of the most important works of Canadian cyberfeminism and one of the first telerobotic sculptures totally interfaced with the Internet. Both visually and intellectually compelling, it speaks on a number of metaphorical levels and addresses the convergence of “technology, feminism and art, as well as the emerging intelligence of the Internet.”

Its structure and movements were designed as a response to the Desmond Morris and Helmut Gaus theory that women’s clothing, particularly the length of their hemlines, corresponds to the economic temper of the times (as seen in the bearishness or bullishness of the stock market). The theory suggests that, in periods “of crisis and deflation, hemlines are lowered and colours disappear; in times of growth...
and at the height of the business cycle,” skirts become shorter and clothing, more colourful.9

This installation is interactive in the sense that it responds directly to the flow of data within the Internet, employing what was, at the time of its making, cutting-edge technology and newly accessible financial information on stock trading around the globe.10 (It is also interactive in the sense that viewers who buy and sell on the stock market have the potential to impact its movements.) In material terms, *Stock Market Skirt* consists of a party dress with a black velvet bodice and blue taffeta sleeves and skirt, mounted on a dressmaker’s mannequin and surrounded by a computer and several monitors of varying sizes.

The juxtaposition of the explicitly feminine dress with the implicitly masculine and unadorned realm of computers and high finance creates an important tension within the work, and contributes to its feminist commentary. The screens display constantly updated stock prices, in white type on blue grounds (whose colour matches the blue of the dress), moving right to left in evocation of the pixel board displays of changing stock prices on the floors of stock exchanges.

In digital-mechanical terms, the work’s custom-designed computer program constantly retrieves changing stock prices from dedicated websites and sends positive or negative pulses to a stepper motor mounted under the skirt. The motor operates a delicate and complex system of weights, pulleys, and cables, which are attached to the inside of the skirt, so that the hemline rises, falls, or flirtatiously quivers in response to the fluctuations of the selected stock. The computer is able to track the price of any stock on the New York Stock Exchange, as long as such information is available online. When that market is closed, the work is programmed to draw temporarily on historical data.

*Stock Market Skirt* has been the subject of considerable lively and ongoing critical analysis and curatorial discourse. In both print and electronic publications, it is the most frequently cited work of Paterson’s career. Its pioneering use of the Internet and its importance to the study of electronic arts in Canada and beyond are amplified by the many ways in which it may be interpreted.

Stefan Van Ryssen has noted that “the work comments on the presence of women as object and consumer in the ‘real’ world, while men are absent, hidden by technology and steering the economy rather than undergoing it.”11 Randy Lee Cutler sees Stock Market Skirt as an ironic “cyberfeminist critique of the representations of women, market economics and information technologies.”12 Cutler also notes that the work registers the popular culture phenomenon in which women’s bodies are often used as sites for the enactment of masculine “technology

---

and desire." And Paterson herself has observed that the work is “an intentionally ironic exploration of the relationship between the two most interesting, if not important, expressions of late twentieth century culture and individuality: lust and money.”

Even without these scholarly interpretations, the work immediately provokes questions about gender, desire, and the ways in which women may function within the high-octane worlds of finance and technology. While Stock Market Skirt’s rising, falling and quivering hemline would seem to suggest a passive relationship to masculine power structures, the very fact of the work’s culturally challenging, intellectually complex, and technically accomplished existence is an act of bold assertion. It is a positive declaration of feminist thought and action.

Notes
5. Davison, op.cit.
6. Paterson, op.cit.
7. Davison, op.cit.
8. Ibid.
10. On her website, www.vacuumwoman.com, Paterson writes that Stock Market Skirt “was conceived long before the technology was available to realize it. The concept of controlling the length of a woman’s dress by referencing stock market quotes in real time could only be put into practice as the internet evolved to supply data which I could access.” She also writes, “In 1995, when I began working on Stock Market Skirt, the only financial resources available online were expensive proprietary subscription services such as Reuters, Star Data and Bloomberg. By 1998 when Stock Market Skirt went public, I had my choice of sites which provided stock quotes, from markets across the globe.”
11. Van Ryseen, op.cit.
13. Ibid.