The title of this paper is a quote from Ada Lovelace's memoir: [1] the device she is referring to, the machine that "might act upon other things besides numbers," is of course the analytical engine conceived by Charles Babbage. This eEngine was never built, but it has nevertheless become commonplace to cite it as the forerunner of modern day computers. Along the same lines, Lady Lovelace is heralded as the first ever computer programmer, and feminists in particular have taken her at her word, weaving her word-processing into the rhetoric on cybernetics.

The motives for doing so do not appear to be attempts to re-pose the question first asked by Douglas Hofstadter in 1979: "...could [Ada Lovelace's] keen insight allow her to dream of the potential that would be opened up with the taming of electricity?" [2] It is simply taken for granted that this is the case, and Ada Lovelace is cited, turned into a site/sight and origin that provides feminism with a foothold in cyberspace. Or, to put it differently, Ada herself has become a meaning-making machine, an engine whose most recent and most unfortunate spin-offs include: "E-mail is female." If I therefore regret my choice of title, it is because it contributes to this citing/siting, this casting of Ada Lovelace as *the* cybermother –a move that becomes even more problematic, I find, when you take into consideration that it was this woman's ability to give birth– to be and become a mother –that killed her in the first place (Ada Lovelace is believed to have died from cancer of the womb).

"... ACTING UPON OTHER THINGS BESIDES NUMBERS"

Theory/ Cyberspace/ Gender

• • •

METTE STRØMFELDT
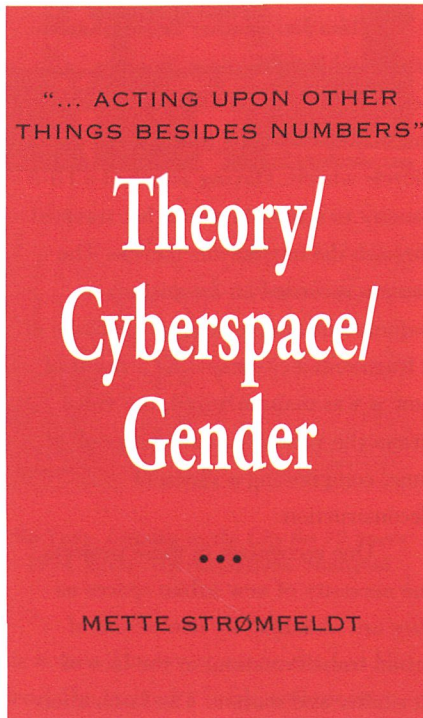
If I ultimately decided not to change the title after all, it was because I thought it only fair to acknowledge how I am implicated in the net that is being spun. My own first attempt to approach this new field of investigation –cyberspace– included a good deal of weaving. [3] Although I had not read writers like Sadie Plant, [4] for example, I found it pretty easy to make the connection, to braid on where A.A.L. [5] had left off: "The analytical engine weaves algebraic patterns just as the Jacquard-loom weaves flowers and leaves," she wrote. And although I'm not going to rehearse the pattern of my fruit of the loom, I do want to stress that my upbraiding here first and foremost is the product of my own text. I have become very wary of its window dressing and have tried to knit this weariness into the texture here, into this fabric, in order for you to know what I am talking about.

So, let me return to the idea that A.A.L. has been made to work like a machine that creates meaning, an Engine, not unlike the A.E. about which she wrote: "The analytical engine has no pretensions whatever to originate anything. It can do whatever we know how to order it to perform." To bring this caution to bear on the A.A.L. would involve a closer investigation of the way this particular engine has been ordered to perform. In short, I propose to shift the focus of attention from the engine it/herself to what is being done to it. Because the A.E. and A.A.L. have both become sites of origin in the myth of the creation of cybernetics, of cyberspace, I will broaden the scope and propose a survey of how theory in general, and feminist theory in particular, orders cyberspace to perform. I will resist the temptation to deconstruct origins, but I will be interested in seeing how the one performance contaminates the other, how the performance of what is made to perform affects the performance of the order. The listing theory/cyberspace/gender should consequently be read as a chain of links whose interaction and interconnection I have made my subject. The fact that I find myself running into matters that I have already touched upon elsewhere, does not make Ada Lovelace's words less pertinent.

I

To put it in the most vulgar way possible, the theorist has a choice of two approaches when confronted with cyberspace: she can 'throw the book' at it, or she can 'throw a switch.' I will deal

with the latter when I focus on feminist theory exclusively. To 'throw the book' at someone is to give maximum sentence. In the tradition of Gilbert & Gubar's inditing (their putting into words), [6] I am charging (indicting) this branch of criticism with passing sentence upon the object of investigation, cyberspace. At times, giving the maximum sentence might be understood as an attempt to translate and recuperate the field of research into a meta-language that is supposed to tell all. In other cases, we are simply witnessing how a book, a code, a terminology from one field is conveyed into another. Theorists fabricate and adjust terminologies that will allow them to construct proper sentences.

In this kind of theoretical activity, positively any kind of book will do. Works by Barthes or Derrida, Kant or Mulvey will hit the spot for some, or you can play it safe with works on etymology or expurgated editions on chaos theory. Interdisciplinary moves need to be addressed. I wonder how many writers are really capable of and qualified to connect, for example, science and literary theory, in a manner that does justice to both fields. I have studied poststructuralist (literary) theory for some time now, and although it doesn't necessarily follow that I am an authority on these theories, I admit that I feel uneasy at the way in which intricate theories are simplified so as to 'fit' aspects of science or technology, and delivered in a manner which I suspect to be reductive –although I cannot tell if this is the case for sure. It would be worth unraveling these simplifications and reductions, especially because they tend to evoke their own complicatedness, to suggest that the convergence of the two fields of

knowledge highlights a new sensibility that it is impossible to grasp without engagement in the intricate, the chaotic, the nonlinear. In contrast, I feel much more comfortable when classic, edifying theories are simply applied to cyberspace and the new technologies. At least in such cases I do not have to deal with the pretense that something radically new is being accomplished.

In conclusion, but by no means to put an end to my vulgarization (which is, in effect, a means of making my own position obvious), 'throwing the book' is the inscription or re-inscription of order, the ordering of cyberspace to perform according to the order that the theorist willingly or unwillingly prescribes, an order often arrived at through a reductionist performance that renders disorder orderly. For the theorist who explores cyberspace under the pretext of making new and radical insights which bear on the phenomenon itself, or bear on cybernetics' influence on our understanding and construction of the world and knowledge, this is disturbing, to say the least. After all, what is reproduced here, seems simply to be the old psychoanalytical discovery that the observer is a part of the observed. The promise of finding something other than one's own Other is broken, and we are left with no greater understanding of the one aspect of our culture that everybody agrees is changing our horizons of understanding as we move into the next millennium. To the feminist, this is particularly distressing, because he –of all people– would encounter this field in search of a keen insight that was able to spot "the potential opened up with the taming of electricity," a potential that would allow for the rewriting of books on gender –be they authored by patriarchs or earlier feminists. Chances

are, however, that if he was interested in change, he would 'throw a switch.'

II

The feminists whose work I will be discussing in this section of the paper are, by strange coincidence, women. What's more, they belong to the same framework of interdisciplinary feminist academic theory in the US, along with Judith Butler and a few others. They are often described as theorists who move beyond second-wave feminism. I am talking about Donna Haraway and Diana Fuss. When Diana Fuss published *Essentially Speaking: Feminism, Nature & Difference* (1989), the book almost instantly received the same kind of attention that Toril Moi's book, *Sexual/Textual Politics,* had received half a decade earlier. Less than a year later, Judith Butler published *Gender Trouble.* By 1991, Donna Haraway had published two books, making her work more widely available. [7]

Before I turn to Fuss and Haraway specifically, it might be useful to give you a brief rundown of the major issue in Anglo-American academic feminism, and the agenda that eventually led to deadlock. Toril Moi argued, that up to the point of her *Sexual/Textual Politics,* Anglo-American feminism had subscribed to a liberal humanism that was either outrightly essentialist or dangerously close to essentializing the notion of woman. In short, she argued that it was about time that people like Elaine Showalter began to distinguish between biological sex and the social construction of gender. Moi advocated the study of *écriture féminine* and its work on difference: if the masculine and the feminine are taken to be metaphysical constructions, *écriture féminine* can deconstruct the binary

opposition between the two, and this kind of "constructionism" allows for a reading of the feminist potential in, for example, the work of Virginia Woolf (according to Moi), potential which remained undetected by Showalter's perspective. [8] Moi's book became one of the most powerful introductions of the binary feminist debate between essentialism and constructionism. In Denmark, the entire feminist perspective was shifted from the Americans to prominent French figures such as Hélène Cixous, Luce Irigaray, and Julia Kristeva. Needless to say, American feminists instantly began to throw the bad word –essentialism– back across the Atlantic, in turn accusing the French of being essentialist. With their insistence on a 'feminine language,' the French were easy targets. I will not go into the details of the argument, [9] but the reasons why "essentialism" became a four-letter word warrant some remarks.

To essentialize femininity is to take the stand that the natural is repressed by the social and that it is possible to recover the essence that has been hidden, that is, true femininity. The opposition argues that this not only wipes out the differences between women (since this practice has a tendency towards universalization), but also leaves little room for change and radical emancipation, if there really is an essence, or, a given. On the other hand, constructionism claims that the natural is produced by the social and thus, by not subscribing to an essence of any kind, new constructions can be facilitated and differences effected. Although few feminists in the 'eighties would actually present themselves and their work as essentialist, the hunt for closet essentialists took off, and this

preoccupation became an impasse for feminism, especially in the US.

Fuss, Haraway and Butler try to get beyond this deadlock, with an even more radical constructionism, in my opinion. Butler, among other things, argues that sex in the sex/gender system is also a construction, and Fuss makes the case that social constructionism is essentialism displaced. It is in the chapter titled "The 'Risk' of Essence," that Diana Fuss deconstructs the binary opposition essentialism/constructionism. I want to look at *how* she performs this deconstruction, not at what she is actually saying (that is, that fundamentally, dependency upon essentialism is a kind of constructionism, and that constructionism invariably lapses into essentialism). Nor will I go into her reading of Lacan and Derrida. Somehow it's almost impossible for me to do so. I'm obliged to watch as Fuss makes the same move over and over again –she throws a switch and I go: ON-OFF-ON-OFF-ON-OFF-ON-OFF-ON.... The chapter itself becomes the kind of deconstructive engine which I'm sure you're familiar with, and which I'm not sure is all that deconstructive. While I do not want to dismiss the importance of *"Essentially Speaking"*, I do question its attempt to escape the impasse described earlier, because it seems to be an impasse in itself. It's still stuck in the old binary, as far as I can tell (although there is more to it than this), in much the same way as Fuss takes the same old texts (by Lacan, Derrida, Irigaray, Wittig) as the subject of her readings. It's being stuck, of course, has to do with the point Fuss wants to make. But, to the feminist who has had her fair share of Lacanian/Derridean feminism (me), this is not a switch that I'm prepared to settle for.

"A Cyborg Manifesto" was first published in 1985 in SOCIALIST REVIEW. [10] It is a perfect example of Donna Haraway's non-reductionist work, with its wild connections to a diversity of fields of knowledge that are rarely encountered. One indication that her writing poses difficulties, is the fact that it is seldom taken on by other writers; this despite the fact that her name is often dropped in conversation, as are certain of her key phrases, albeit modified into slogans: "I'd rather be a cyborg than a goddess." Haraway not only draws on the most complicated and intricate aspects of science and social studies as her subject matter, but furthermore, uses the intricate as a propellant and propels it further. The difference between Fuss and Haraway is that Fuss's deconstructive act takes place within a closed circuit which leaves no way out, while Haraway, on the other hand, is in the process of creating and articulating new myths: her work makes dazzling connections to unknown territories because when Haraway throws a switch, she opens up a path to the unexpected, to an elsewhere. Haraway contaminates science with literature, and vice versa, but hers is a controlled contamination, a skilled pollution, that creates points of disturbance and forges new paths (in much the same way that the silicon wafer is contaminated when impurities are incorporated in the production of ICs).

Some try to filter a new vocabulary out of Haraway's texts, arguing that her shifts from "reproduction" to "regeneration," from "reflection" to "difraction," from "representation" to "articulation," etc., are symptomatic of her break away from constructionism (and especially from the "representation discourse"), but few

would argue that she wants to move away from constructionism entirely. I worry that such efforts could produce a stifling new terminology, one that might eventually steal the potential away from Haraway's word processing, a word processing that has more in common with literature, than is ordinarily admitted by science or theory. However, that Haraway does form a radical break with some aspects of second-wave feminism, is easily acknowledged, as suggested by the following quote:

As Zoe Sofoulis argues in her unpublished manuscript on Jacques Lacan, Melanie Klein, and nuclear culture, Lacklein, the most terrible and perhaps the most promising monsters in cyborg world are embodied in non-oedipal narratives with a different logic of repression, which we need to understand for our survival. [11]

In Haraway, the cyborg is used as an in(ter)vention that dramatically confronts us with the outdated holy scriptures that feminism has been forever recycling: she lays bare their rundown state at the end of the century. The fact that Haraway is able to carry us beyond the restrictions of oedipal triangles, is already more than promising to me. If it's difficult, or perhaps impossible, to apply Haraway, I would argue that she invites us to set up mirror sites that connect to her, in the sense that they take their cue from her performance, but, of course, situate other kinds of knowledge. Such mirror sites would not just reflect her work, but would refract her keen insights, insights that are articulated in quotes like the following:

Situated knowledges require that the object of knowledge be pictured as an actor and agent, not a screen or a ground or a resource, never finally a

slave to the master that closes off the dialectic in his unique agency and authorship of 'objective' knowledge. [12]

As an object of knowledge, Haraway's own writing should "be pictured as an actor or agent." That this leaves us without any safe ground –or any safe numbers to pull, for that matter– is a relief (at least to those of us who are not virtually cocksure). The Haraway corpus interrogates mastery, not to do away with authority (the ability to author a text), but in order to locate strategies that might enable feminists to construct a voice, to tell their stories. Time and time again, Haraway urges us to consider the narrative and rhetorical aspects of this storytelling, whether the story told is the reinterpretation of an origin story, or the proclamation of a totally new story. [13]

III

The rhetoric used in the plot to turn Ada Lovelace/A.A.L. into the generator of an origin for feminists in cyberspace, may be consistent with the rhetoric originally engineered by the A.A.L. and could prove highly compatible with traditional myths of origin. I wonder though, if this story can create and deliver circumstantial positions from which feminists might gain new perspectives, new insights? Or, to put it another way, what would be most advantageous for the feminist: to appear as an indigenous or as a naturalized citizen of cyberspace?

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[1] cf. Douglas R. Hofstadter, Gödel, Escher, Bach : *An Eternal Golden Braid*, (London and New York: Penguin Books, 1979)p.25.

[2] ibid.

[3] cf. "Window Dressing" in Lynn Hershman Leeson (editor), Clicking In : Hot Links to a Digital Culture, (Seattle: Bay Press, 1996).

[4] Her article "The Future Looms: Weaving Women and Cybernetics," is a perfect example of what I'm referring to.

[5] A.A.L. is, of course, the signature that Ada Lovelace used for the footnotes which she provided for her translation of Menabrea's work. I'm deliberately using this signature to set up a distinction between the real woman, whoever she might have been, and the "woman" circulated in writing about her.

[6] cf. *The Madwoman in the Attic*, (Newhaven: Yale University Press, 1984), especially "Infection in the Sentence" in Part I. While trying to untangle myself from the net of one discourse, I'm obviously already entangled in another.

[7] Diana Fuss, *Essentially Speaking*, (New York and London: Routledge, 1989); Toril Moi, *Sexual/Textual Politics*, (London and New York: Methuen, 1986); Judith Butler, *Gender Trouble*, (New York and London: Routledge, 1990); Donna Haraway, *Primate Visions*, (New York: Routledge, 1989) and *Simians, Cyborgs, and Women*, (London: Free Associations Books, 1991).

[8] Toril Moi is reading Elaine Showalter, A Literature of Their Own, (London: Virago Press, 1978).

[9] I have dealt elsewhere with the fact that Toril Moi neglected (in her book) to discuss people like Shoshana Felman, Gayatri Spivak, Jane Gallop and Alice Jardine (all of whom worked with French theory of the kind that Moi hoped to introduce, and had in some cases been doing so for almost a decade). This led to the unfortunate silencing of perhaps the most interesting theoretical work being done in America at that time. (cf. "Ballade om køn" in ANGLOfiles #95, Jan. 96, Denmark.)

[10] "A Manifesto for Cyborgs: Science, Technology, and Socialist Feminism in the 1980s" in SOCIALIST REVIEW 15:2 (March-April) pp. 64-107.

[11] cf. p.150 in "A Cyborg Manifesto" in *Simians, Cyborgs, and Women*.

[12] cf. p.198 in "Situated Knowledge" in *Simians, Cyborgs, and Women*.

[13] For example, "In the Beginning Was the Word: The Genesis of Biological Theory" into which Haraway brings Gilbert and Gubar' *The Madwoman in the Attic*. See also "The Contest for Primate Nature: Daughters of Man-the-Hunter in the Field, 1960-80." Both texts are in *Simians, Cyborgs, and Women*.