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STS Essay

Henry Ford and Margaret Atwood discuss technological choice and sustainable development

Margaret: Hello, you must be Henry Ford; it is nice to meet to you. I’m Margaret Atwood.

Henry: Hello Margaret, I must admit I have never heard of you. What do you do?

Margaret: Well, I am a bit after your time¹. I am a Canadian author and poet, but I would say that I am best known for writing novels with strong female characters.

Henry: So you are a feminist then?

Margaret: I don’t know if I am a true feminist. I started writing before the women’s movement², so I guess I am a pre-feminist author. My idea of feminism is human equality and freedom of choice for all³. (pause) Well Henry, I do know a bit about you. You’re the founder of the Ford Motor Company and creator of mass production⁴.

Henry: (laughs) Very good! It’s nice to be remembered such a long time after I achieved all that. I think that my most important accomplishment would be creating an affordable and reliable car for the normal man⁵. Before my model T, cars were just playthings for the rich. (pause) I must admit it has been disappointing finding out the fate of Fordism⁶.

Margaret: Oh, I remember reading about a crisis in Fordism in the 1970’s or 1980’s, but I wasn’t too sure what it was about.

Henry: Well, from what I have read, in the up to the 1970’s there had been a good balance between the goods produced by mass production and the goods consumed by the public. However in the

¹ Margaret Atwood was born in 1939: Ingersoll, E. G. (ed) 1990, Margaret Atwood Conversations, Ontario Review Press, Princeton, while Henry Ford lived from 1863 to 1947: Rupert, M. Fordism in Burwood, S. (ed) 1999, The Cold War: An Encyclopedia, Garland Publishers, New York

² The women’s movement was in the 1970’s, but Margaret Atwood started writing in 1956: Ingersoll, E. G. (ed) 1990, Margaret Atwood Conversations, Ontario Review Press, Princeton p 140

³ Ingersoll, E. G. (ed) 1990, Margaret Atwood Conversations, Ontario Review Press, Princeton p 142

⁴ Rupert, M. Fordism in Burwood, S. (ed) 1999, The Cold War: An Encyclopedia, Garland Publishers, New York

⁵ Batchelor, R. 1994, Henry Ford: Mass Production, Modernism and Design, Manchester University Press, Manchester p 20

⁶ Fordism is the capitalist process of mass production with mechanism and promotes mass consumerism: Boyer, R. and Durand, J. 1993, After Fordism, Syros, Paris p 7

1970's the labour process reached its limit and demand fell, as other countries began producing their own goods on mass, and unfortunately Fordism didn't survive the competition⁷.

Margaret: It sounds like it also coincided with environmental movement, when people started caring about the environment, and realised that Fordist production methods were adversely affecting it⁸.

Henry: Oh, do you have an environmental background?

Margaret: Not really, though I have always had an interest in biology. My father was an entomologist⁹. Do you have any environmental interest?

Henry: Well, I have been had an ongoing interest in agriculture since my youth¹⁰, but the environment wasn't something you worried about in my day. It seems now that things sure have changed. I think that it is strange that I have been asked to participate in this discussion.

Margaret: I think the point of today is for people like us, with no environmental background, to share our views on the environment, in relation to our experiences and our beliefs. It should be interesting, though I must ask how did you get to 2004, Henry?

Henry: Well, it's a bit of a secret, but I guess I can tell you. Not many people knew that in 1944 I got interested in cryogenics. Just before I died in 1947 I was frozen, using a device I invented, so my living relatives could bring me back for the 100 year anniversary of my Model T¹¹. The ABC must have got wind of it as they asked me to be brought back early for this discussion. I don't really mind, it gives me an extra four years to enjoy the future and with modern medicines I am as healthy as ever!

Tom (ABC Presenter): Are you both ready? We are about to start.

(Both Henry and Margaret nod)

Tom: Ok, let's go... Hello and welcome back to ABC radio. As I mention before the news, today for our Tuesday environmental issues debate we are joined by Ford Motor Company founder Henry Ford, and author and poet Margaret Atwood, to discuss technological choice and sustainable development. Henry, Margaret, welcome.

Henry: Hello.

Margaret: Hi.

Tom: I would like to start with the first topic for today, technological choice. Henry, what is your attitude towards technology?

⁷ Rupert, M. Crisis of Fordism in Jones, R.J.B. 2001, Routledge Encyclopedia of International Political Economy, Routledge, London

⁸ Boyer, R. and Durand, J. 1993, After Fordism, Syros, Paris p 21

⁹ Ingersoll, E. G. (ed) 1990, Margaret Atwood Conversations, Ontario Review Press, Princeton p 100

¹⁰ Batchelor, R. 1994, Henry Ford: Mass Production, Modernism and Design, Manchester University Press, Manchester p 27

¹¹ The Model T was invented in 1908, so the 100 year anniversary will be in 2008 Batchelor, R. 1994, Henry Ford: Mass Production, Modernism and Design, Manchester University Press, Manchester p 22

Henry: I have always had the strong belief that technology can solve any problem¹², be it social, economical or even environmental. Take agriculture for instance, the elements of nature can be tamed through technology. I was involved in a fertilizer project that helped provide cheap nitrate fertilizer to farmers to increase their crops¹³.

Margaret: I would think that promoting nitrate fertilizer would be more of a technological flaw, than advancement. Inappropriate technologies can cause environmental problems. While nitrate fertilizers increase yield, will they cause environmental degradation by polluting waterways¹⁴.

Henry: It is a financial success for the farmers as they got higher yields...

Margaret: (Cutting Henry off) But the use of nitrate fertilizers leads to ecological disaster. The only technology we need must be designed with full knowledge of ecosystems so we can prevent environmental problems.

Tom: Margaret, what is your attitude towards technology? You address the issue in several of your novels.

Margaret: Personally, I have always been wary of technology. I feel that gender is a major factor in technology. My attitude towards the subject comes across in my novels, particularly in 'The Handmaid's Tale'¹⁵. Men have access to science and technology, and are able to control women, and nature through it¹⁶.

Henry: Really, that may have been so in my day, but you are just repeating tired naïve assumptions. From what I have read women now play a key role in creating new technology. What about the Women's Technology Cluster?¹⁷ I think that it is more of a belief that you feminists have that technology is linked with men and it is not true¹⁸!

Margaret: Of course there are and have been women are involved in technology. During the industrial era many women invented or helped in the invention of many things, such as the small electric motor, however their inventions were often credited to their husbands¹⁹. Maybe even your wife²⁰ helped you with inventing, but wasn't credited...

¹² Batchelor, R. 1994, *Henry Ford: Mass Production, Modernism and Design*, Manchester University Press, Manchester p 1

¹³ Batchelor, R. 1994, *Henry Ford: Mass Production, Modernism and Design*, Manchester University Press, Manchester p 27

¹⁴ Commoner, B. 1972, *The Closing Circle*, Jonathon Cape Ltd, London p 150-151

¹⁵ 'The Handmaid's Tale' published in 1985 is feminist science fiction which explores the issues of reproductive technology: Tong, R. 1989, *Feminist Thought: A Comprehensive Introduction*, West View Press, Boulder

¹⁶ Kember, S. 'Feminism, Technology and Representation', in Curren, J., Morley, D. and Walkerdine, V. (ed) 1996, *Cultural Studies and Communication*, Arnold, New York p 233

¹⁷ Women's Technology Cluster – an American technology-industry developer which targets female entrepreneurs www.wtc-sf.org

¹⁸ McLoughlin, I. 1999, *Creative Technological Change*, Routledge, London p 130

¹⁹ Wajcman, J. 1991, *Feminism Confronts Technology*, Allen and Unwin, St Leonards p 16

²⁰ Clara Bryant married Henry Ford in 1888: Batchelor, R. 1994, *Henry Ford: Mass Production, Modernism and Design*, Manchester University Press, Manchester p 16

Henry: (Cutting Margaret off angrily) Now hold on there...

Margaret: (Cutting Henry off) Technology is both undeniably masculine and exploitive towards women and nature²¹. Even though women are getting more recognition, technology is still dominated by men who use it to control women.

Tom: Okay, getting a little heated, remember this is only a friendly discussion. Henry, how do you feel about your principle of mass production or Fordism being transferred to developing countries?

Henry: Well I would say that my processes of mass production would be helpful in developing countries. I think that it would be both logical and profitable to expand mass production to such countries²². It would help promote industrialisation and create jobs for the people, which would lead to a better living standard for them. Look what the five dollar day did for my workers²³.

Margaret: I disagree. I think that the transfer of Fordist technology to developing nations would be inappropriate, as it could have severe side effects. It would take people away from their traditional way of life and ignores their own technology. The new technology is often not suitable to the country and causes more problems than it solves, so if new technology is implemented it would need to be done slowly to specially adapt to the areas needs²⁴.

Henry: I think that advantages of the technology would improve people's lifestyles, and so the benefits would outweigh any disadvantages.

Margaret: Who for, you or them? I think one of the reasons that you would be interested in developing nations is their lack of environmental laws. The only type of new technology developing nations need is low polluting technologies²⁵. Fordist mass production would result in environment destruction of the local ecosystem, so I could not see how any developing country could possibly be better off with Fordism.

Tom: Ok, we have a caller on the line, Kate from Surry Hills, what is your question?

Kate: Hi Tom. Margaret, how have your feminist attitudes affected your understanding of technology transfers to low income nations?

Margaret: Well Kate, as I was telling Henry before the show, my idea of feminism is equality and freedom of choice for everyone. When technology is forced on people, as it often is when technology is transferred to a developing country, they have no choice in relation to whether they want it or not. I also think that western technologies in developing countries will cause inequalities

²¹ Wajcman, J. 1991, *Feminism Confronts Technology*, Allen and Unwin, St Leonards p 163

²² Boyer, R. and Durand, J. 1993, *After Fordism*, Syros, Paris p 21

²³ Henry Ford introduced the five dollar day, a previously unheard of pay as he realised that his workers were customers too: Batchelor, R. 1994, *Henry Ford: Mass Production, Modernism and Design*, Manchester University Press, Manchester p 23

²⁴ Pearce, F. 1992, *The hidden cost of technology transfer*, *New Scientist*, 9 May, p 36

²⁵ Ausubel, J. H. and Sladovich, H. E. 1989, *Technology and Environment*, National Academy Press, Washington p 169

as they would force a large gap between the rich and the poor. Therefore my attitudes have given me a negative impression of transferring technology to developing countries.

Tom: Ok, I think we might move on our second topic now, sustainable development. Henry I know that this is a new topic to you, but what is your impression of sustainable development?

Henry: Yes, sustainable development is a concept much after my time²⁶. From what I understand sustainable development involves looking at current production and consumption and realising the economic, social and environmental implications of the future generations²⁷. At the time when I was producing my cars there was generally little concern for the environment, so I admit that my practice of mass production were not completely sustainable in the long term.

Margaret: That's definitely true! Your process of mass production was only successful so long as no one questioned what it was doing to the environment. It has been shown that Fordism is responsible for environmental destruction as it convinced people that mass consumption was the only way to have the 'good life'²⁸.

Tom: Margaret, how do you feel about sustainable development?

Margaret: Quite simply, it is vital for our survival. Although I feel that our environmental concerns are being forfeited to ensure current and future economic gains.

Henry: I understand if we do not look after the environment our economic future is at risk, but for sustainable development to succeed we must maintain economic growth, so it is important to guarantee our economic returns.

Margaret: That is only because people are not prepared to compromise their lifestyles and consumption habits to save the environment. Economic and industrial growth should not be the focus of this issue as they are not sustainable processes themselves. I read somewhere the other day that sports utility vehicles have a much worse fuel consumption than the Model T and this is 100 years on²⁹! I think that it is disgusting the way that industry ignores the problems facing us. We need a push towards renewable resources.

Henry: Not all of us industrialists are completely against renewable energy as you would like to portray. I designed my Model T to run on renewable ethanol³⁰, but gasoline emerged as the fuel of

²⁶ The issue of sustainable development was first came to international attention in 1987 in the Brundland Report: Lemons, J. and Brown, D. A. (ed) 1995, Sustainable Development: Science Ethics and Public Policy, Kluwer Academic Publishers, Dordrecht p 1

²⁷ Tylecote, A and van der Straaten, J. 1997, Environmental, Technological and Economic Growth, Edward Elgar Publishing Limited, Cheltenham p 2

²⁸ Lipietz, A. 1996, Sustainable Development: History and Horizons
http://www.uwex.edu/ces/ag/sus/html/sustainable_development.html 21/05/04

²⁹ Editorial, 2003, Auto Production: Sustainability Not An Option, ALU Issue No. 49, October- December
<http://www.amrc.org.hk/4902.htm> 20/5/04

³⁰ Henry Ford and Fuel Ethanol, Canadian Renewable fuel association <http://www.greenfuels.org/ethahist.html> 17/5/04

choice early last century, due to convenience and price. I see now that people are only just beginning to cotton on to my idea of using ethanol.

Margaret: If that is so, why didn't you change your practices to be more environmentally friendly?

Henry: We didn't create more environmental friendly technology, as we didn't think that it was an issue back then. Some of my critics, such as Aldous Huxley³¹, would like you to believe that I care nothing for the environment, but it is not true. The purpose of creating cars for the normal man was so that everyone could enjoy God's great open spaces³².

Tom: Henry, what level of sustainability do you think we need?

Henry: From what I have read I think a good level of sustainability would be to protect some critical elements of nature, such as the ozone layer, but there must be some form of exchange between other types of natural assets³³. This way it doesn't impinge on the economy.

Margaret: That kind of sustainability will do nothing, as it is only weak sustainability! It ignores issues of value of ecosystems and the carrying capacity of the earth³⁴. What we need is strong or very strong sustainability. For life and our survival we need to make the choice of strong sustainable development³⁵.

Henry: I think that you will find that I am beyond most governments in my understanding the need for sustainable development; I believe that they are only up to implementing very weak sustainable development now³⁶. Very strong sustainable development just wouldn't work. It would mean using very few materials and energy. It is a non-growth position³⁷, and that is negligent in respect to the economy as well as the environment.

Tom: Margaret, do you think there is enough participation by women in matters related to sustainable development?

Margaret: No I don't think there is. There is a strong link between women and nature, and when the environment is destroyed, especially in developing nations, it is often women who are left the most susceptible by the destruction³⁸. With this in mind I think that there needs to be more participation

³¹ Huxley, A. 1932, *Brave New World*, Penguin Books Ltd, Middlesex

³² Batchelor, R. 1994, *Henry Ford: Mass Production, Modernism and Design*, Manchester University Press, Manchester p 20

³³ Carter, N. *Understanding Sustainable Development*, <http://www.fathom.com/course/21701763/session2.html> 21/5/04

³⁴ Ollikainen, M. *Sustainable Development from the Viewpoint of Ethics and Economics* in Tylecote, A and van der Straaten, J. 1997, *Environmental, Technological and Economic Growth*, Edward Elgar Publishing Limited, Cheltenham p 44

³⁵ Lipietz, A. 1996, *Sustainable Development: History and Horizons* http://www.uwex.edu/ces/ag/sus/html/sustainable_development.html 21/05/04

³⁶ Carter, N. *Understanding Sustainable Development*, <http://www.fathom.com/course/21701763/session2.html> 21/5/04

³⁷ Ollikainen, M. *Sustainable Development from the Viewpoint of Ethics and Economics* in Tylecote, A and van der Straaten, J. 1997, *Environmental, Technological and Economic Growth*, Edward Elgar Publishing Limited, Cheltenham p 46

³⁸ Shrestha, M. 2001, *Women's Role in Sustainable Development with Special Reference to Nepal*, *A Journal of the Environment*, 6 (7) p 111

by women in sustainable development. Take Agenda 21³⁹ for instance. The goals of environmental protection, economic well being and social equity can not be achieved without first solving the problems of gender inequality⁴⁰.

Henry: Again with the inequalities! You should go back to when I was born, and then you would know what inequalities are!

Margaret: (ignoring the comment) As it is has been western technology and lifestyles that have gotten us into this present problem, I think that we need a non-traditional solution, such as feminism, to solve the problem of sustainable development.

Tom: Ok we have another caller on the line, George from Austinmer, what is your question?

George: Henry, I know you said that you said that the environment wasn't much of an issue in your day, but were you involved in any practices that would now be called sustainable?

Henry: Well, in 1937 I was involved in soya bean research. From then about 2 pounds of every Ford car produced was made from soya plastic⁴¹. I think I would call that a sustainable practice. I believe that plastics after were made of mineral resources, so the renewable option that I came up with was a good alternative.

Tom: Well, I am afraid that we are out of time. While you two couldn't agree on the issue on technological choice, I am right in assuming that you both think that sustainable development is necessary, though I don't think it would be possible to decide on the level of sustainability needed.

(Both Henry and Margaret nod)

Tom: Great, nice to reach some sort of conclusion. Thank you both for expressing your views for the Tuesday environmental discussion. Coming up next...

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³⁹ Significant agreement from the 1992 Earth Summit focused on solving environmental protection and sustainable development issues: Lemons, J. and Brown, D. A. (ed) 1995, Sustainable Development: Science Ethics and Public Policy, Kluwer Academic Publishers, Dordrecht p 3

⁴⁰ Hemmati, M. Women and Sustainable Development, in Dodds, F. (ed) 2000, Earth Summit 2002, Earthscan Publications, London p 65

⁴¹ Batchelor, R. 1994, Henry Ford: Mass Production, Modernism and Design, Manchester University Press, Manchester p 32

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