

# 14. A look at two gender tech articles (2007)

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## Background

Back in 2007, I took a look at two then current articles about female involvement in software development. This is a slightly updated and expanded version of that article.

## The articles

As with a lot of feminism, both articles suffer from something that I call a *floating premise*. In some parts of the article the subject is the barriers which prevent women from entering into commercial software development, and sometimes it's the lack of female involvement in FOSS<sup>1</sup> development. When the switch is made, the implication is that what is a reasonable assumption for one situation must also be applicable to the other.

My judgement of *SCALE 5x: Women in Open Source* is that it's a rant. On the other hand, in my humble opinion, *The hidden engineering gender gap* is an interesting exploration of the issues that ends with a conclusion that I find unsupportable. See the bibliographical notes at the back of the book for the web links to the original articles.

## SCALE 5x: Women in Open Source<sup>2</sup>

I think that it's fair to characterise the bias of this article[13] as feministic. It's an account of the (female) author's observations having attended some talks given by women on the subject of female involvement in open source.

One thing that this article overlooks (in common with similar articles) is that an analysis of female involvement in FOSS provides an opportunity to explore the broader issues of female involvement in IT.

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<sup>1</sup>Free and Open Source Software[12], a collaborative model of software development which is characterised by voluntary and unpaid contributions. The Firefox web browser is a popular open source project.

<sup>2</sup><http://www.thejemreport.com/content/view/300/>

## 14 A look at two gender tech articles (2007)

One of the attractive aspects of taking part in FOSS development is the lack of barriers: there are no academic entry requirements and you don't have to "get the job". So, for example, if I were to make the following statement:

*Women are less likely to choose a career in software development because they are less likely to study computer science at degree level.*

we can *test* that statement by applying it to the world of open source software development.

In FOSS development there exists a context in which:

1. people create software
2. there are no barriers in the form of educational entry requirements
3. female involvement is minimal

In an activity for which a degree level education is not required, female involvement is still minimal[14].

Let's test another statement:

*Male interest in IT is caused by the fact that they have studied computer science.*

Many men contribute to FOSS without a degree or with a degree in something other than computer science[14][15]. In fact, the number of males who contribute to FOSS while under the age of 21 is greater than the total number of women who contribute[15]. So, it's reasonable to conclude that the phenomenon of female underinvolvement in open source software development cannot be caused by a lack of women studying computer science at degree level.

We could also use observations of FOSS to test a hypothesis such as:

*Men are attracted to software development careers as they are relatively high salary compared to a job such as being an infant school teacher.*

Applied to the FOSS movement, we can see that there are lots of men who take part in computer programming without financial reward.

### **The hidden engineering gender gap<sup>3</sup>**

The author of this article[16] has reached some of the same conclusions as myself in regard to the problems that prevent more women from becoming involved in IT. That is, for some reason, women (in general) lack an interest in computer programming.

She says:

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<sup>3</sup><http://www.venturebeat.com/contributors/2007/01/02/the-hidden-engineering-gender-gap/>

Everyone in professional or Open Source software development has worked with countless male colleagues who are essentially self-taught, lacking all or most formal training in computer science, and in not a few cases bereft of any post-secondary degree whatsoever.

and in the final paragraph of part 1, she moots some interesting questions about the issue of women in IT:

What opportunities might be lost if we continue to do nothing about the gender disparity in software engineering, or simply wait for long-term educational efforts to take root at some unspecified future date?

However, no exploration of gender and the workplace has much value if it only examines the conditions affecting one sex and not the other. This amounts to what I term a *deliberately non-inclusive study*. The real issue at hand is the problem of over or under-representation of the two sexes in various areas of the world of work. It is both immoral and counter productive to expend effort in getting more women into computer programming while expending no efforts to create more male infant school teachers, for example.

Part two of her article contains the real meat and the content that I find more contentious.

Women seem to be disproportionately attracted to careers where they feel they can help others—for instance medicine (which of course requires rigorous, highly competitive scientific training)—rather than careers that promise high pay or entrepreneurial possibility.

Another explanation that fits the facts would be that women are not forced into bread winning roles to the same extent as men. Most women would feel no dishonour in taking a low hours, low responsibility job. Women often demand a job that will fit around their life aspirations. A woman might choose a career which allows her to work a 26 hour week with flexi-time or to take a long-term sabbatical.<sup>4</sup> The majority of caring careers can accommodate these demands.

It's easy to see that a subject such as sociology is an “interesting” subject compared to something like business studies. In her book on statistics for the social sciences[18], author Frances Clegg says:

Perhaps when you began your course in one of the life sciences, you felt dismayed to discover that you would have to start doing statistics.

[...]

So why is now your bad luck that you now have to start statistics—just when you thought that at last you would be able to devote all your attention to a really *interesting* subject?<sup>5</sup>

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<sup>4</sup>For example, in the UK in 2007, the proportion of women working 16-30 hours a week is the same as the proportion of men working 45+ hours a week: 30%[17]

<sup>5</sup>Emphasis hers

Many men would like to study a subject that would allow them to pursue a career offering greater intrinsic rewards, such as working with young children, but decide not to as such careers often don't guarantee a high salary.

In the final section of the article, the author begins to pursue a course of reasoning that I find objectionable: that of affirmative action.

She begins by stating that:

Faced with this unpalatable conclusion, we can choose to blame the individuals; we can choose to put our faith in long-term efforts; or we can choose to treat the symptom without necessarily fixing the root causes.

That is a very rational assessment of the different possible approaches. Unfortunately—and surprisingly—she goes on to suggest that we should treat the symptom without fixing the root causes. The treatment that she moots is an affirmative action based program of creating female orientated educational courses.

## Affirmative action

Both of the articles favoured some sort of *affirmative action* programme in higher education. The ploy here is the classic feminist technique of non-inclusivity.

Women don't need extra facilities to be put in place to encourage them to study for a degree. In the academic period 2005-2006, 640,850 UK students obtained a higher education qualification at degree level in the UK. That group consisted of a 58%-42% split in favour of women (table 14.1). The statistics for North America are similar. In England and the US, more women than men study at degree level.

	women	men	total	% fem.
1967-1968	49,598	120,012	169,610	29.2
1973-1974	68,595	135,006	203,601	33.7
1978-1979	90,937	155,056	245,993	37.0
1983-1984	103,605	148,633	252,238	41.1
1996-1997			1,756,179 <sup>a</sup>	52.5
2005-2006	372,455	268,390	640,850 <sup>b</sup>	58.1

Table 14.1: Higher education gender composition in the UK.[21] The totals are the number of undergraduate students at that time, apart from 1996-97 and 2005-06 (see notes).

<sup>a</sup>This figure is *all students in higher education*[19]

<sup>b</sup>This figure is *number of higher education qualifications received*[20]

Some people would argue that the current difference isn't significant. It's worth noting that in 1984, 24 years ago at the time time writing, the situation was the reverse of the current one (table 14.1), as higher education students in UK were 41%-59%

split in favour of men. I wonder if the feminists of that era were willing to accept the difference as insignificant?

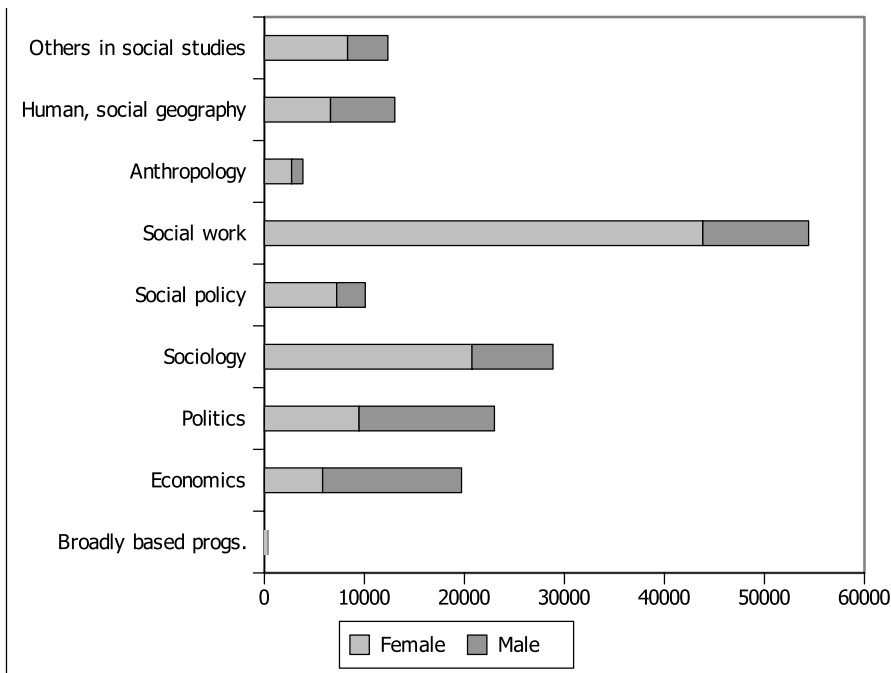


Figure 14.1: Male-female representation studying social sciences at degree level in UK in the year 2005-2006[22]. Note that male representation in some social science subjects such as economics is higher and that female representation is higher for subjects such as social work.

The rhetoric of feminist activists on the subject of education never begins with:

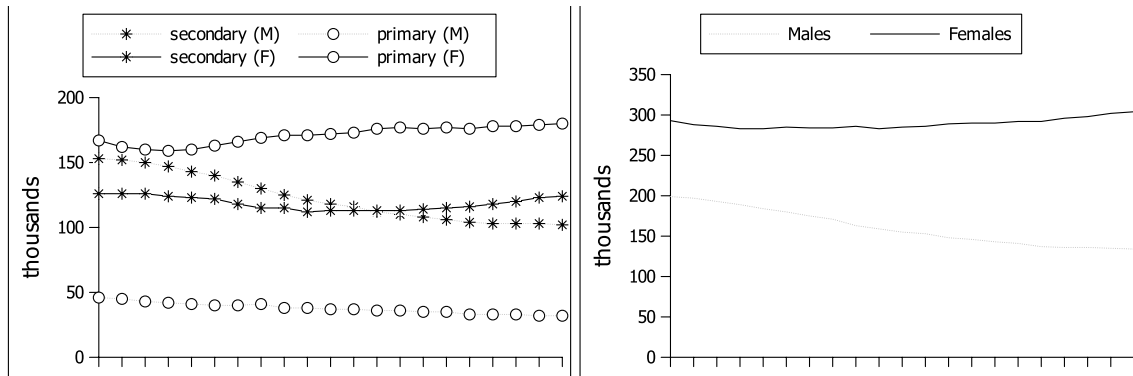
*“Even though females get better results on average than males at every level of education, and even though more females attend university than males...”*

Instead, feminist polemic often makes it sound as though women have, after years of struggle, *finally* won the right to start going to university. As far back as 1969, 40 years ago, nearly 30% of all university students were female. Statistics like that can be misleading because the numbers *sound* very low, but remember, we’re talking about 30 out of 50, not 30 out of 100.

A belief in equality of the sexes and a desire for 50-50 representation in all areas and levels of education ought to go hand in hand, but feminist rhetoric does exaggerate the difficulties that women have faced in the past. At the same time, such polemic typically omits mention of the areas in which females are doing better than males.

One counter-argument to that point would be that feminist activists only want the extra resources and privileges to reduce barriers in subjects that are currently male-dominated. I consider that argument to be a weak one. Logically, if more women than men are studying for a degree and women are under-represented in some subjects, men must be under-represented in other subjects. Female domination *must* be more

common than male domination. Referring to the HESA website reveals that men are underrepresented within, for example, the social sciences (see table 14.1 on the preceding page).



(a) Male and female involvement in primary (inc. nursery) and secondary teaching. 1982: male involvement = 21% (pri.) and 55% (sec.) 2002: 16% (pri.) and 45% (sec.) (b) All teachers. 1982: 40% male 2002: 31% male

Figure 14.2: Male-female representation within teaching in the UK. Years 1982-2002[23].

Anyone who truly believes in equality must also believe that it would be for the betterment of society if men were better represented in jobs such as counselling and nursery school teaching (see table 14.2). In fact, I think that this would have a greater affect on society as a whole than getting more women to study IT. However, I would accept as valid an initiative that identified areas in which *either* sex was underrepresented in an academic subject or work role. Such a program could be extended to include race, perhaps.

It's also worth noting that, at the time of writing, such affirmative action programmes are being carried out in higher education. Usually, the studies that justify the action are carried out by women who are heads of female dominated subjects.

Some might say, "But, only a sociology lecturer could carry out such a study, and they usually just happen to be feminist women." I would argue with that. Why not put the head of the mathematics department in charge of such a study and see what the real gender balance issues are?

Top geek technology site Slashdot covered a story about male-female performance in mathematics[24]. The study featured a subtitle of *Standardized tests in the U.S. indicate that girls now score just as well as boys in math*. The Slashdot story summary read:

For anyone who still believes that boys are better at math than girls, a massive new study published today in Science shows there's no difference.[25]

The story was widely carried around the Internet. For example a website called Feministing.com gave this summary, with the tags "Education" and "Sexism".

A new study, the largest of its kind, shows that girls are equally as skilled in math as boys. (And the anti-feminists cry.)

News site MSNBC took a similar line:

Sixteen years after Barbie dolls declared, “Math class is tough!” girls are proving that when it comes to math they are just as tough as boys.

[...]

Parents and teachers persist in thinking boys are simply better at math, said Janet Hyde, the University of Wisconsin-Madison researcher who led the study. And girls who grow up believing it wind up avoiding harder math classes.[26]

The study, carried out by five women<sup>6</sup>, and the subsequent media analysis both imply that as girls are not doing better than boys in mathematics, the girls are being held back. The media coverage forgets to mention girls do better than boys in the majority of school subjects. Girls have averaged better than boys in the UK school system for quite some time, for example<sup>7</sup>. Why do I get the feeling that when girls start to do markedly better than boys in mathematics, we will be told that girls’ brains are innately suited for that type of activity in a way that boys’ brains are not?

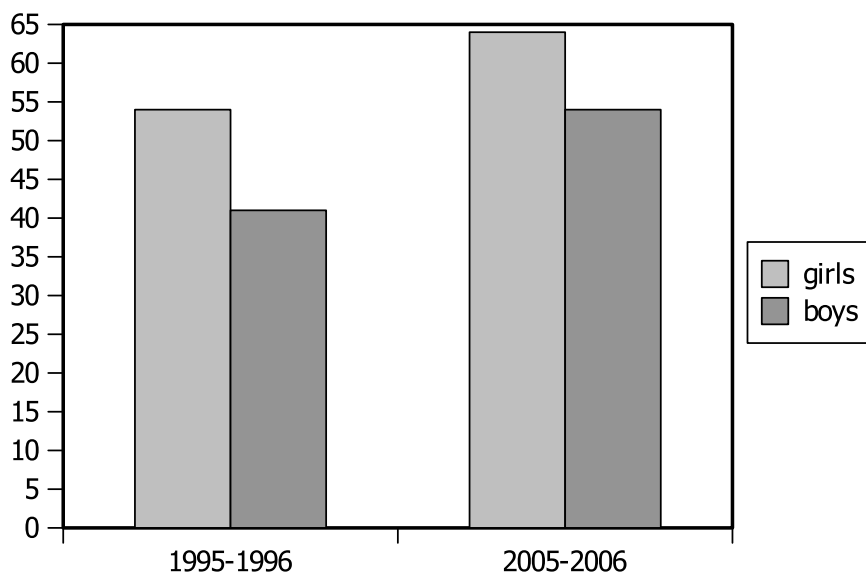


Figure 14.3: Percentage of GCSE students obtaining five A grades or more. Gender composition in the academic years 1994-95 and 2005-06.[27]

<sup>6</sup>see bibliographical note[24] at the back of this book

<sup>7</sup>see table 14.3

## Feminism in the forums

A point that was raised in the *SCALE 5x: Women in Open Source* article was that women apparently face barriers within the FOSS development communities themselves. I quote:

Not only did the majority of the predominantly female attendance agree with Peters' compilations of data, but several had appalling stories about men behaving terribly toward them on free software mailing lists, in IRC channels, and indeed even in real life at Linux User Groups (LUGs).

[...]

One woman, close to tears, told a story of how she was turned away from her first LUG meeting because some jerk there told her that it was a Linux-related gathering, not a singles event.

I'm certainly not going to call any of the women who related anecdotes liars. However, the implication is that those experiences are typical. The first thing that strikes me about those accounts is that they are not in keeping with my own experience. Indeed, I have often observed women in technical forums receiving what I considered to be partial treatment.

Perhaps the anecdotes related by the conference attendees were the product of misunderstanding? I don't think that I'm being unfair when I say that feminists can sometimes be a bit, shall we say, over-sensitive.

Surely, everyone has witnessed a user of a forum who makes a fool of themselves and then storms off because no one else seems to *get it*. I bet that most of us have at one time or another in our online lives been the fool in that situation.

As with much feminism, her report isn't very useful in scientific terms. The data gathering method was that of "asking people"<sup>8</sup>. At such an event, there would be an air of expectation that would encourage a certain type of response. A question such as "Whom here has been the victim of sexism in a technical forum?", when asked at a mini-convention about women's issues in IT, is a leading one.

Had I been sitting in the audience, would I have raised my hand, stood up and said:

*"Contributing to FOSS is often noble and altruistic. Women benefit from this sort of work and yet contribute very little. Given that there are no real barriers, why don't more women contribute or even start their own projects? The only requirement for getting started is a computer with an Internet connection."*

Of course not. I would have been afraid of being booed out of the room for being a sexist.

You can make some observations for yourself. Do you often witness women being treated badly in technical forums? In the case of such forums that have a rating

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<sup>8</sup>*Self reporting* in social science speak.

system for comments, do women normally have a lower score than men? Along these lines, it's worth noting that when the link to the *SCALE 5x: Women in Open Source* article was published on the OS News website, some women took part in the debate in the comments section. One thing that I noticed about those women is that the average comment score associated with each of their accounts was conspicuously high. Surely, if women were always abused, ignored and overruled on tech forums, their average comment scores would be low rather than high? Far from being a definitive study, such an ad-hoc approach does at least contain a numerical element.

In the article, it is reported that Jean T. Anderson, an attendee of the conference, stated that these were the main barriers to female involvement in FOSS development:

- Women frequently don't know how to get started with a project.
- They are afraid of looking stupid.
- They don't want to be flamed on the public mailing lists or IRC.
- They feel that they do not speak English well enough to participate.
- They are uncomfortable with publicly accessible and archived email lists.
- They are not comfortable "selling" their ideas to the group.
- Sexist jokes and demeaning comments create a negative atmosphere for women.

I say that each of those points is either simply a falsehood or a claim that could be countered with, "it's the same for men."

Strangely, the comments of Anderson seemed a bit confused from that point onwards. The article first states that:

Anderson explained that these perceived barriers were mostly unfounded fears, myths, and cultural prejudices, and proceeded to explain that in practice, there were few things to fear[...]

which sounds sensible. But the article then goes on to say that:

Anderson charged us all to be intolerant of all comments on free software development IRC channels and mailing lists that demean women, reminding us that such behaviour harms men as well as women.

So, in summary, this phenomena does not exist but it must be confronted whenever it is encountered. It sounds to me as though Anderson was trapped between representing the views of both feminism and common sense at the same time.

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