# The Challenges and Value of Involving Women in Computing and particularly Health Informatics Research

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**Abstract.** This presentation was given summarizing the declining numbers of women entering Computing at the University of the Highlands and Islands, in Scotland and in the USA. The different motivations for students to study computing was examined and this was linked to the need for the area of Health Informatics to be researched and what this area of research demands.

## 1 Introduction

The number of women enrolling for computing courses has fallen to less than a quarter of its previous value from 2009/10 to 2012/13. Women now make up 17% of the students studying Computing at the University. Similar figures can be seen in Scotland as a whole where across all IT related Higher Education courses, 87% of acceptances are male and 13% are female [1].

#### 1.1 Is there a need for Women in Computing Research?

From the introduction it is clear that women are in the minority in the field in Scotland but should this be a problem? Research cited by the National Centre for Women and IT [2] shows that women are statistically more likely to cite the reason for choosing to study a Computing major as they "are interested in helping people and society".

Health Informatics is by its nature an area of computing which aims to help people and society. It is also an area of research which requires researchers who are able to work in multi-disciplinary groups and be open to developing new and innovative ways of using mixed methods of research.

## 2 Attracting and Retaining Women

Women will be attracted into this increasingly important field of research if they see role models within academia and if stereotypes are avoided both in and out of class. It is encouraging to see organizations such as the NCWIT (www.ncwit.org) which produce excellent materials to support the promotion of women in IT. It is also encouraging to see that a search in Google Images for 'Computer Scientists' yields as many

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female pictures as male on the first page. Those much needed female role models are starting to emerge.

### References

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- 2. NCWIT. (2009). *Key Practices for Retaining Undergraduates in Computing*. Available: www.ncwit.org/retainundergrads. Last accessed 17th March 2013.