

#### **Dismantling the Barriers**

for Women in Computing Internationally





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#### **Dismantling the Barriers**

- Background
- Presentations from around the world
- Discussion





### Alice is not in this land

- ★ The land of computing is a frontier country, and, as in the development of most frontier territories, there are more men than women.
- Indeed, it appears that at all levels of learning about computers - in school, in higher education, in further education, in training, in adult education classes, and in independent learning
  - women tend to be strikingly under-represented

(Gerver 1989 p483)



## Background - Education

	Pop'n	School	Age	University	Literacy
	(mill)			% Women	
Australia	20	7/6	15	57%	100%
Austria	8	4/4/4	15	52%	98%
Germany	83	4/6/3	15	50%	95%
India	1030	5/7	14	37%	total 65%; M: 75% F: 52%
Pakistan	150	6/4/2	10	50%	total 46% M: 60% F: 31%
South Africa	45	7/5	15	52%	total 86% M: 87% F: 86%
Turkey	68	8/3	14	41%	total 87% M: 94% F: 78%
UK	57	7/5	16	50%	99%
USA	293	4/4/4			97%



# Background - Society

	% of Workforce	% of Parliamentarians	Right to Vote
Australia	45%	26%	1902
Austria		25%	1918
Germany	46%	31%	1918
India	38%	9%	1950
Pakistan		33%	1947
South Africa	42%	30%	1930 (whites)
			1994 (blacks)
Turkey	35%	4%	1930
UK	45%	17%	1918
USA	47%	14%	1920



## Background - Workforce

	Where they are	Where they are not	
Australia	Health/education/sales/clerks	Engineering/ Senior management/ construction	
Austria	Health/ social work/ trade	Researcher + development	
Germany	Nurses/Secretarial/teachers	Construction/senior positions	
India	Agriculture/domestic workers	construction	
Pakistan	Healthcare/ education/ secretarial	Engineering / architecture/ scientists/ defence	
South Africa	Nurses/ teachers/ clerks/ domestic workers	Legislators/ senior officials and managers	
Turkey	Nurses/ teachers/ Pharmacists/ programmers	Engineering	
UK	Secretary/Nurses/Cooks/domestic	Engineering/ Senior positions	
USA	Social services/ education/ health/ domestic	Engineering/ construction/ automotive	



# Background - Computing

	% IT Professionals	% Studying IT
Australia	24%	23%
Austria	27%	15%
Germany	20%	15%
India	21%	47%
Pakistan		30%
South Africa	27%	32%
Turkey		21%
UK	20%	20% U/G
		26% P/G
USA		28% U/G



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### Reflections

- Gender and IT The inequality does matter.
- A complex array of issues contribute to the problem.
- There are a variety of strategies for change.
- There is no quick and easy solution.
- We need to continue to chip away at the barriers
- We need to make a difference



### **Relative Complexity**

In my parents' lounge room after Christmas dinner

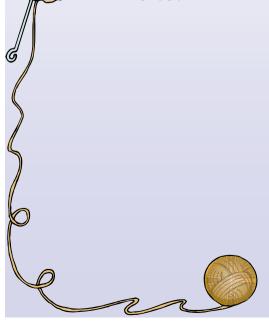
I am talking to my brother the computer programmer.

He is explaining to me the principles of cyberspace.

"It is only relatively complex," he says finally, peeling the icing off his fruitcake,

"It is mainly a system of binaries, permutations of zero and one.

so the data may be stored as, say, zero, zero, one, one, one, zero, zero, one."





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My mother sighs.

She is next to us, half-listening.

She is knitting a fair-isle sweater.

"I'll never understand how you get your brain around it," she says.

"It's beyond me" she says, and turns half her attention back to her fair-isle pattern: Purl purl plain, plain plain plain purl purl.

