Participation of women in higher education

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uCube data

- Shows large differences in female participation in FoE = 2 (IT)
- Range from ~9% to 35%+
- What are the differences?

Proposed activities

- Investigate difference in female participation
- Literature review
  - brief for RA – avoid clichéd “gender studies in IT”
  - Search terms … decision making by youth, informing career choices, gender and IT careers etc.
- Data collection from high and low achieving institutions w.r.t. % female participation
- Data analysis
  - Explore institutional data
  - Explore context of high performing degree programs

Influencing factors for career choice

- Parents – daughters/mothers, sons/fathers
- Connections between future careers and popular media
- Pride in IT proficiency noted in males, noticeably absent in females
- Girls rely on a degree of personal connection when considering possible future careers
- Two important predictors – student's beliefs re: competency and attributed value to subjects
- Perception of maths abilities aligned with computer ability
- More females in high math and verbal skills – have more choices and tend to choose non-STEM career paths

Factors influencing ICT choices in schools

- 3 key influences
  - Gender
  - Time spent using computer at school
  - Value students place on ICT subjects
- Value influenced by
  - Curriculum and pedagogical planning (grouping and timetabling)
  - Perceived teach expertise
  - Dispositions towards use of IT in class

University students

- Not yet capable of accurately defining value affordances of expected careers
- Choice of study programs often made after publication of university enter scores
- Gender diverse instructors
- Successful role models
- Training materials and style should not reinforce gendered stereotypes
- More females are attracted to creativity and multimedia
  - Extrinsically motivated to learn programming equally as males
  - Motivated to learn technical concepts in domains that are creative, fashionable and sociable

Data collection

- 6 universities invited to participate, 4 provided data to date
- Breakdown of commencing students reported to uCube by degree, gender for domestic and international students for FoE = 2
- (More data needed?)

Distribution of females – high end (35%)

A	Master of Information Systems Extended	5	11.00%	10
A	Master of Computing	2	17.00%	9
A	Master of Information Systems	46	20.00%	8
A	Master of Information Technology (Professional)	30	21.00%	7
A	Bachelor of Information Technology	181	21.00%	6
A	Master of Computing Technology	5	23.00%	5
A	Graduate Diploma of Information Technology	14	32.00%	4
A	Bachelor of Business and Bachelor of Information Technology	17	33.00%	3
A	Bachelor of Commerce and Bachelor of Information Technology	10	34.00%	2
A	Master of Information Systems and Master of Project Management	7	54.00%	1

Distribution of females – low (10%)

B	Bachelor of Business Information Systems	22	24.00%	2
B	Master of Health Informatics	20	37.00%	1

Distribution of females – average (19%)

C	BAppSc/BGames&InteractiveEnt	8	22.00%	3
C	MBusProcessMgt	32	30.00%	2
C	MInfTech(StudyAreaA)	233	30.00%	1

Distribution of females – low (~12%)

D	Bachelor of Arts and Bachelor of Computer Science	2	29.00%	4
D	Bachelor of Science and Bachelor of Computer Science	4	29.00%	3
D	Bachelor of Computer and Mathematical Sciences and Bachelor of Economics	2	40.00%	2
D	Bachelor of Computer and Mathematical Sciences and Bachelor of Commerce	7	44.00%	1

… Low end

D	Master of Information Technology - Coursework	11	22.00%	7
D	Master of Computer Science	15	23.00%	6
D	Bachelor of Computer Science and Bachelor of Commerce	10	24.00%	5

Final thoughts

- Reconsider desire to rationalise double Masters programs
- Are we targeting the right demographic with our intervention strategies?
- Do we need to redirect some (all?) our efforts?

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