# Equal opportunities @ LiU

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# Equal opportunities – Goals

- Everyone should have the same rights, responsibilities and opportunities
- Actively work against all forms of discrimination, harassment, bullying, victimisation, and exclusion
- Respect for the individual and their unique background and capabilities

Everyone shall be treated equally and fairly



# Equal opportunities – Why?

- Basic human rights and democracy
- Swedish law against discrimination
  - If a person gets mistreated, disadvantaged or offended...
  - ...based on one of the discrimination grounds pointed to in the law: sex, sexual orientation, gender identity or expression, ethnicity, religion, disability, and age.
- Every Swedish authority has to work towards equality, and in particular gender equality



# Equality and quality assurance of higher education

"Equality is an important quality aspect and in the quality assurance of higher education it is therefore of great importance that gender equality is considered" (translated from) Robin Moberg, UKÄ.

"It is everything from increasing competence of employees, to integrating a gender perspective in our communication, our quality assurance and our controls" (translated from) Agnes Ers, UKÄ.

## Gender and gender equality

- *Gender* is a term for describing what it is to be a woman or a man (socially and culturally)
  - The term 'gender' comprises all the notions that exist in societies about what is defined as feminine and masculine.
  - Gender arises in interaction between biological sex and the human social and cultural environment, and is therefore possible to change.
- *Gender equality* is about equality between men and women, who should have the same opportunities to form society and their own lives
  - Includes issues on power, influence, economy, education, work, and physical integrity



# Why specific focus on gender equality?

- Affects the largest group of citizens (and students)
  - basically everyone
- Studies conducted show large issues still remain, even here in Sweden
  - Cemented values and preconceptions
  - Large disadvantages, such as lower salaries for women despite on average better educated and better grades



### Why gender equality on our education programs?

- Law requirement to work against discrimination, harassment etc.
- Directives from the government
- Many programs show a low quantitative gender equality,
   i.e. programs are much more popular with one gender
  - Studies show that diversity gives better results
  - We want the best qualified students, not only the best qualified students from one gender
  - With a skew gender distribution we risk that the minority does not feel that they belong, i.e. loosing even more students
  - •



#### Equal opportunities work at LiU

- **Gender/equal opportunities lecturers** supports program managers and teachers
- Equal opportunities coordinator and work group centrally, also with specific focus on gender equality
- Gender equality perspectives integrated in courses on all programs
- Recruitment, both students and employees
- Hard to affect equality among students, although work is ongoing
   This lecture!



# Engineering and natural science education – what has gender to do with it?

Considered objective and independent of all characteristics of the observer (researchers, teachers, students) – including gender

... BUT ....

Classrooms, lab rooms, and history of the subjects are often dominated by men, i.e. one gender.

How does that affect the education? For men? Women?



# Masters in science and engineering (Civilingenjör)

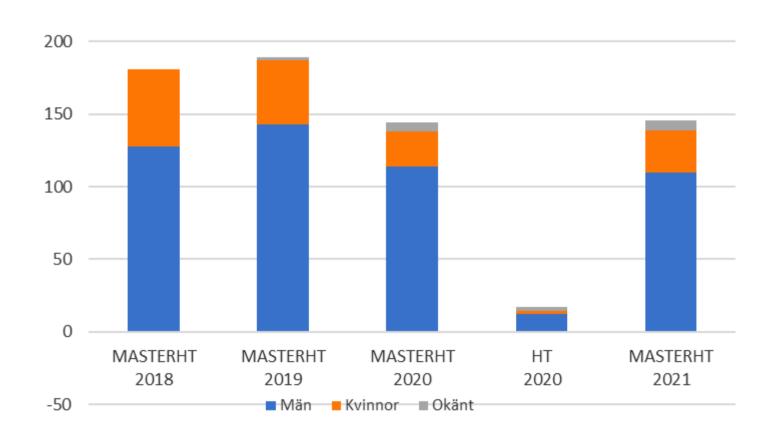
- Great variations
  - Computer science and engineering: 85 % men
  - Electrical engineering: 83 % men
  - Mechanical engineering: 80 % men
  - Chemistry: 53 % women



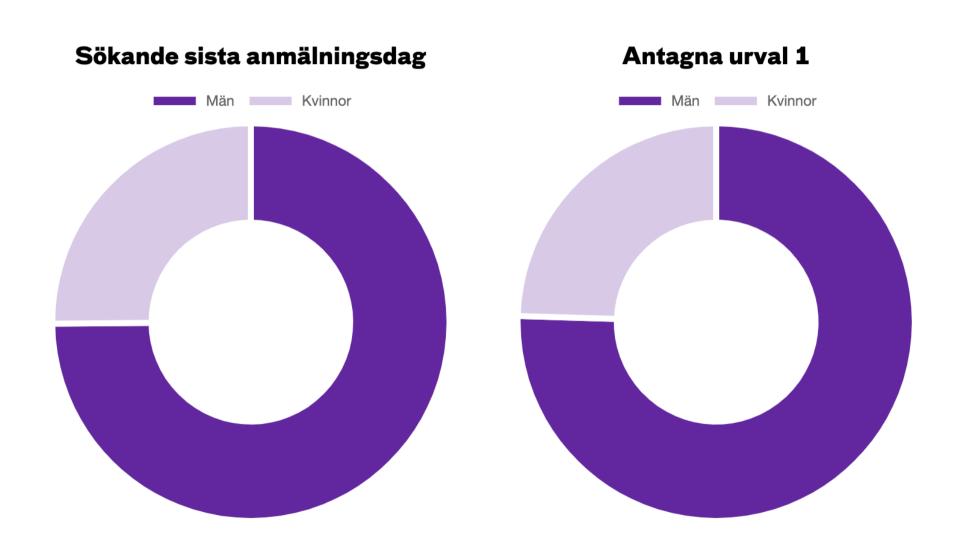
# No of admitted students at the technical faculty, LiU 2019 Source: UKÄ, 2019

Program, HT 2019	Women	Men
Industriell ekonomi	108	217
Civ. Ing. i datateknik	24	154
Civ. Ing. i maskinteknik	20	140
Civ. Ing. i informationsteknologi	7	26
Civ. Ing. i kemisk biologi	45	15
Civ. Ing. i teknisk biologi	22	12
Civ. Ing. i elektronikdesign	4	18
Civ. Ing. i medieteknik	21	54
Civ. Ing. i design och produktutveckling	55	61
Civ. Ing. i energi - miljö – management	65	46
Civ. Ing. i mjukvaruteknik	12	77
Civ. Ing. i medicinsk teknik	27	17

# Applicants to the Statistics and Machine Learning Master



# Statistics and Machine Learning Master



#### Professors and lecturers in natural sciences 2020

Source: SCB 2020

<b>Professors: University</b>	Women	Men
Linköpings universitet	16	112
KTH	25	122
Chalmers	11	100

Lecturers: University	Women	Men
Linköpings universitet	39	125
KTH	28	98
Chalmers	32	101

# Culture – visual presentations







FIGURE 1.9 Galileo Galilei (1564-1642).



FIGURE 5.1 Sir Issac Newton (1642-1727).



FIGURE 8.2 Gottfried W. Leibnitz (1646-1716).



The climber has done work to increase his potential energy.



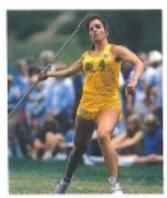
Although the mass of Edwin Aldrin, Jr., had not changed, his weight on the moon was roughly one-sixth his weight on earth.



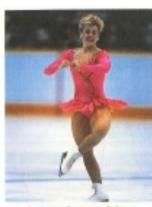
A weight lifter does work to lift weights but not to hold them at rest.



# Culture – visual presentations



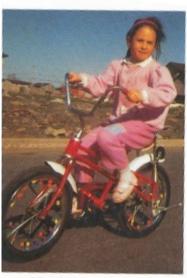
The net work done on the javelin is equal to the change in its kinetic energy.



Elizabeth Manley controls her angular speed by varying her moment of inertia.



During a grand jeté, a ballet dancer appears briefly to "float in air". However, the center of mass still follows a parabolic path.



What do you notice about the front wheel?



#### Men as the norm

Many lecturers talk about an engineer, programmer or statitician as "him". Some may say "him or her", but seldom just "her".

#### Read more:

"Lad Culture in Higher Education: Sexism, sexual harassment and violence". Carolyn Jackson, Lancaster University. <a href="https://srhe.ac.uk/wp-content/uploads/2020/03/JacksonSundaramLadCulture.pdf">https://srhe.ac.uk/wp-content/uploads/2020/03/JacksonSundaramLadCulture.pdf</a>

Observe your own lecturers – what do they actually say?



#### Content or form?

#### **Form**

Teaching should be conducted in such a way that both male and female students' experiences and knowledge become visible, and develop.

Awareness and a deliberate choice of actions, is important in order to improve and minimise unequal power and relations between groups.

#### **Content**

Content is often considered "objective", e.g. math, algorithms, etc ...but many things can still affect society, including gender and discrimination issues – e.g. biased algorithms or data





#### **Studies at LiTH show**

I Male students are given more time for questions and answers

I The answers given are different depending on who asks

I Examinations are valued differently

I Stereotypical distribution of work and roles

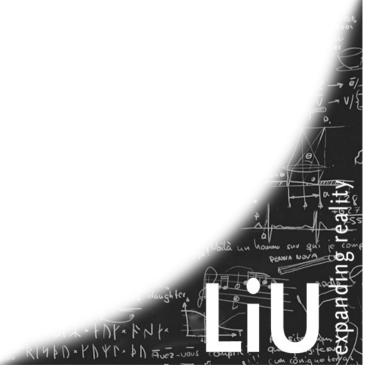




### To watch out for

I Seminars and lessons:

I How is the distribution of questions and answers?





#### To watch out for

I Examination:

I Are there more than one person/teacher present at oral exams?

I Are written exams anonymous?





#### To watch out for

I Labs and project work:

I Do you rotate tasks and roles?

I How are groups formed?

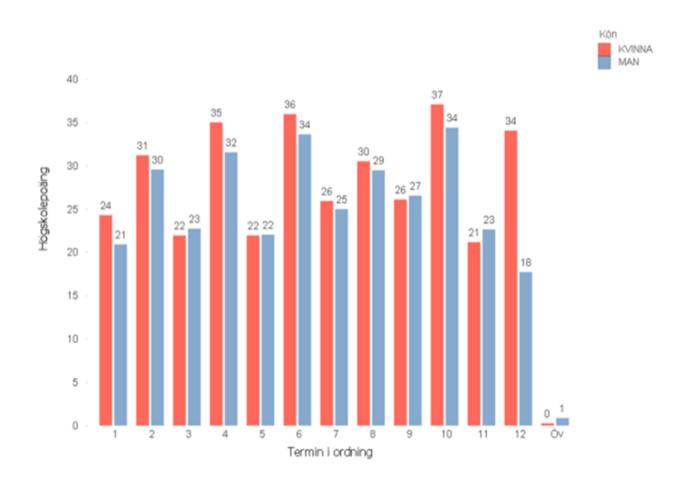


### Experiences from learning situations

- Common preconceptions
  - Education is gender neutral is it really?
  - •"We're all friends here"
  - Girls approach problems in a different way
  - Girls are more thorough, boys are sloppy
  - "Locker room talk"
  - Talking about "boys", "the guys", "bros" etc.



# Study results





### What should we do?

Be aware of that we, as students or teachers, based on our personal experiences and values all unconsciously transmits and applies preconceptions about, e.g., gender and other aspects, so that some students (or teachers) feel excluded or discriminated, and which conserves these values and misconceptions



#### What to do?

- Be humble, modest and listen to people around you (democratic conversation climate)
- Notice how others treat each other, e.g. teacher vs. student, student vs. teachers, and student vs. students
  - Who do you communicate with and how?
  - How do you communicate?
- On average men get more "space" than women
  - Be observant and notice the distribution of questions and speaker time in groups and lessons
  - Invite quiet people to give their opinion be inclusive
- Embrace the experiences of all students
- Raise issues talk to each other, and to the teachers, if something does not feel right

