



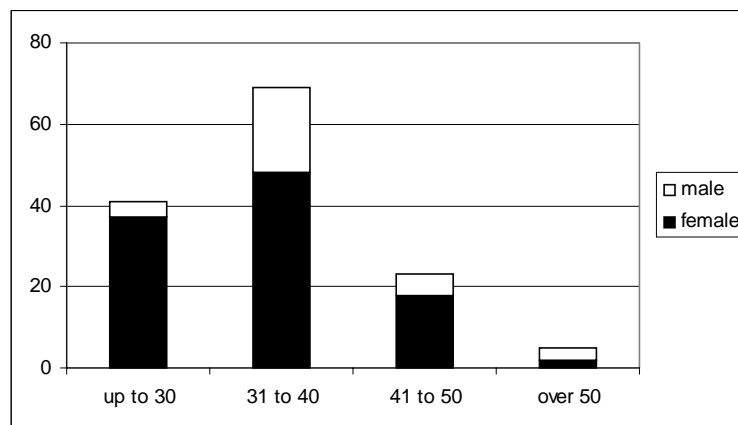
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Women's trajectories into ICT: dynamics, paths and patterns

- Overview of informants
- Method and strategy
- Five biographical patterns
- Comparing women's and men's biographies

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Overview of informants: Age

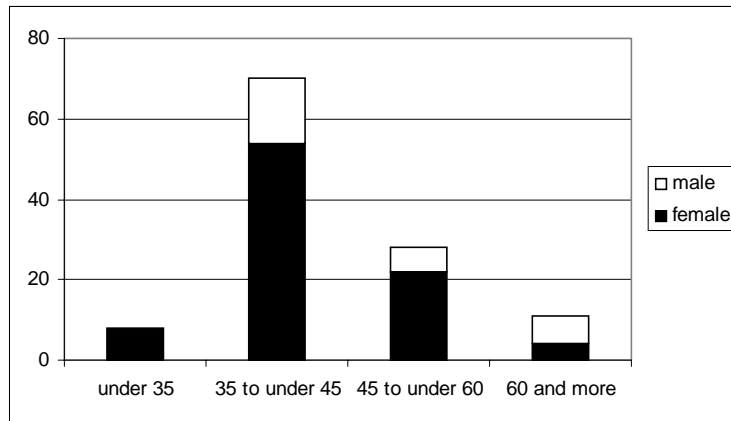


n = 105 female / 33 male

min = 22 max = 59

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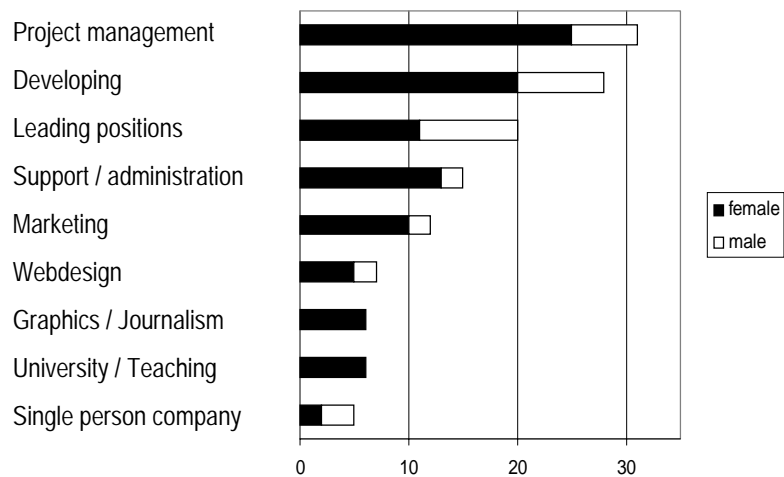
Overview of informants: Working hours (per week)



n = 88 female / 29 male

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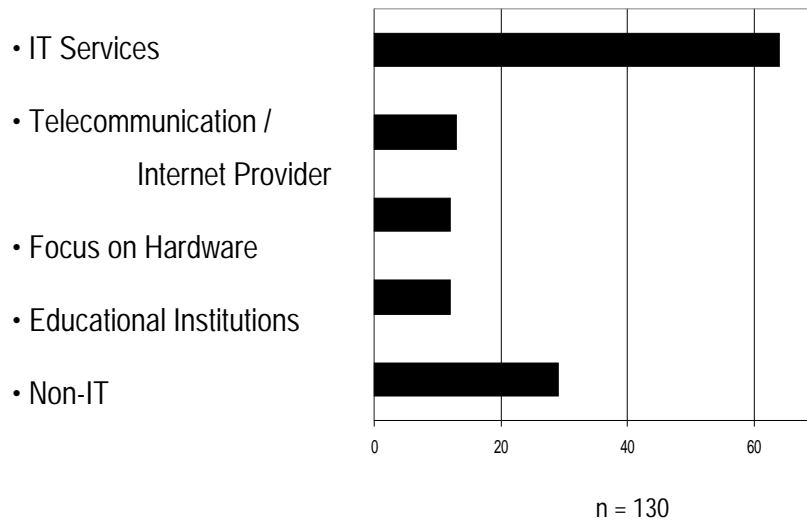
Overview of informants: Tasks



n = 98 female / 32 male

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Overview of informants: Companies / Branches



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The method: biographical interviews

- Aim to develop an understanding of a person's biography or trajectory – her development as based on opportunities, choices, and individual coping strategies
- Main concepts for our interviews were
 - 'life themes'
 - strategies
 - turning points (detours, transitions)
 - and crucial significant others
- Interview technique
 - partly pre-structured
 - partly narrative
 - partly stimulating reflection

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Analysis of biographical material

- Looking for commonalities in women's biographies, grouping them in **categories**, describing and analysing patterns
- Search the material for experiences that cut across individual biographies that allow a more general view of women's situation in IT, namely of
 - the diversity of backgrounds and career paths
 - of jobs and working conditions in the field
 - and the role of gender.
- Look at men's biographies, trying to read them in comparison to those of the women.

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Preliminary (cautious) categorizations

- Being independent – self determined
- Feeling insecure and lost
- Single minded careers in math and technology
- Having grown up in the countryside
- Having not yet arrived, being open

The categories are not theory-based but empirical, grounded in the material itself. They reflect some of the colour the women themselves gave to their narratives

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Being independent - self determined: AF07

Father house painter, her mother at home - a happy childhood with caring parents

Mother a generous and caring person - "she was the protecting wall", "Go your own way, do what you want, get yourself a job".

Being in charge of her own life is AF07's main life theme

To be able to determine things yourself, this is what is possible when you develop your own company ... and I love developing software ... you can cope with a lot of stress when you love your work, and it is simply exciting to be able to participate in decisions.

Perceives herself as having created the environment for herself, in which she feels comfortable. This includes work as well as her private life of friends and family.

Became engaged in the peace movement and the women's movement as a student – always met other women, somewhat older than her, who gave her support, encouraging her to go her own way.

Founded her own software company, together with the adviser of her thesis

When she had her child, her partner, a former social worker who recently retrained and now works as an internal SAP consultant for the city council, switched to working a lot at home.

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Being independent - self determined: AF01

Parents both elementary school teachers – "out of passion" - and they have instilled in her a love for learning. Graduated in technical mathematics, worked as a research assistant at Tokyo University: the 12 hour flight was a journey from home – she still lived with her parents – into another culture and into independence.

Started a formidable career in a steel factory; was sent to South Korea with the task "to design, model, program, and implement process models". For almost twelve years she negotiated complex contracts, where "the contract has an essential role in the success or failure of a project". Later career move "from specialist to generalist" – "*no one pushed me out of this area, each time this was my own free decision*" - ended a step back in the hierarchy.

Describes some of her most precious moments while working in process automation - *the 'starry moments', the most rewarding activities, the greatest intellectual challenges, to develop something new ...*

Being able to communicate with foreign cultures as life theme: The essence is to take others - be it a client or a person from a foreign culture or of different colour - seriously. Feeling not sufficiently respected as a women professional is intertwined with her love for and engagement with '*othernesses*'. Refers to her experiences with male colleagues who behave "like tractors".

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Being independent - self determined

- A supporting private environment – parents, in particular mothers, who serve as role models, are admired by their daughter, give encouragement and support, together with a choice of partners who take their share of household duties and child care and are proud of their wives.
- A strong will of the women to shape their own environment – this includes going abroad as a single woman to be exposed to other cultures, being in charge of their own life from a quite young age on, founding their own company, carving out their own field of expertise, building things on their own, fighting for a good position.
- Being aware of the disadvantages of women and (in some cases) engaging in providing training and other kinds of support for women.

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Feeling insecure and lost

There seems to be a family script of insecurity and lack of success in these women's biographies; they themselves lack self-esteem, even may see themselves as failures and in need of support and positive feedback; they have not chosen IT as a career but happen to be there.

AF05 was not a successful student. She, for example, never did the basic but quite difficult exams in math and electrical engineering and did not finish her degree. She finds life difficult and a heavy load.

Having accepted a "bad contract" as an IT specialist in a provider company, she describes herself as "maid for all things, because this includes everything, from watering flowers to taking care of clients" adding

I define myself somehow as an unskilled worker, basically it is not more. It is knowledge acquired on the job. Who offers a position to such a person?

With some money she would build up a florist's shop, sell flowers, make arrangements. Obviously this is not an appropriate job for the daughter of a (failed) construction engineer.

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Single minded careers in math and technology

These women embarked on rather straight career in a technical field, they are extremely hard-working, love problem-solving as an intellectual challenge, and to some extent also actively shape their own environment.

"Standing out" - as a remarkably tall child, an excellent student, in the scientific community (AF09).

There are single-minded, taking extreme pleasure in mastering the intellectual challenges of their discipline, and striving to the top.

Extremely hard working - work is "almost like a drug" (AF09); an 80 hours week - a situation of "temporary extermination" (AF08).

Follow more traditional role models. Moving in a male world and being successful in it is taken almost for granted:

They all strode in, in their fur coats, and this was such a male clan, and as the only woman the vice rector for personnel, and that's when I thought, to be on top there, this could be a goal.

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Having grown up in the countryside: A04

From a family with 6 children - went to a 2-year agricultural school, then worked on her parents' farm until she was 20.

Started in a small trading and production company, managed the transition from manual to IT supported work in the office:

In such a small company IT is something very small, this was just two terminals and a printer ... for orders and accounting, just these things. And I learned the operating and programming, this was not difficult, because I took a couple of courses at the software company, and that was it.

She wanted to move on, develop herself, and become "more professional". Works in a bank - a stable, 'respectable' environment that offers a variety of fringe benefits for its employees.

Her experiences typical of an older woman in IT who has no formal education but good practical skills that are gradually made obsolete as a result of newer and 'younger' technologies.

AF04 very attached to her home environment..

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Having grown up in the countryside

- IT offers the opportunity to move from the countryside to the city into jobs that offer good pay and the opportunity for learning.
- Some of the women encounter IT in their first (clerical) jobs and seize the opportunity to qualify themselves for a career, either through learning by doing (the older one of the women) or through additional training.
- The women's independence is a result of their having grown up on a farm, where they had to look after themselves and eventually also younger siblings, their affinity to technology a consequence of having been exposed to it from an early age.

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Having not yet arrived - being open

These women had a good start into working life but are not yet set on a career path, not knowing where to go.

AF02 got a degree as technical assistant in informatics, works at the IT department of a large TV station in a support role - there is a "diverse landscape", with lots of different software. Perceives herself as "without a plan", is pondering to finish her education.

AF11 studied technical informatics, works in a multimedia company and does not yet know where she wants to be. One of her life themes is "to be late in realising what I really want".

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Diverse career paths

- Straight careers in IT (AF07, AF08, AF09) - setting up their own software company, creating their own field of work within IT
- Finding their way into IT through other job
 - no formal education, learned IT on the job, moved to IT department of a bank, with transition to server-client technology finds herself at the periphery (AF04)
 - degree in tourism and marketing, marketing assistant in small vendor company, 2-year college in 'commercial informatics', IT consultant with focus on quality assurance in computer company (AF13)
 - clerical jobs in steel factory then computer company, studied informatics, research assistant at an interdisciplinary institute in Rome, then academic career (AF10)
 - studied journalism, taught herself web skills, worked in e-government project, built up computer training centre for women, finished her master thesis (AF06)
- Career obstacles
 - lack of degree (AF02, AF04, AF05)
 - lack of job opportunities in the area (AF15)
 - lack of hard-core developer skills (AF13)
 - wrong career move (AF04)

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Male biographies - are they different?

- Building things (AM01) and shaping one's own environment as life themes - but partly motivated by
 - need of freedom - to live with a minimum of commitments (AM03)
 - to enjoy life without having to invest too much in one's career (AM04)
- While supporting mothers/fathers play a large role in women's biographies, fathers (grandfathers) appear as 'images' - the mechanical engineer, the entrepreneur, the lawyer, the garage mechanic - rather than parents who encouraged or gave support
- While the women emphasize the possibility to learn, to be creative and problem solving as a strong motivation, some men have a tinkering or bricolage relationship to technology
 - AM02 runs his small provider company having turned his passion into a living and runs it in a rather hands-on way
 - AM05 has done lots of jobs, including marketing wedding dresses, before turning his hobby computers into a profession
- The careers of AM02, AM04, and AM05 follow patterns that are accepted in the male world but they are by no means outstanding.

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