Women in Telecommunications in Australia

Wireless Hill 2022

John Paskulich WAHTS
https://oldaustraliantelephones.weebly.com/

The Talk

- No need to take notes. On my website. Take a card
- Australian telecommunications history
- Women's status and industry roles: 19th, 20th and 21st C.
- Some individuals' stories over the centuries
- Comparison with some other countries
- Please forgive superficiality. Three centuries in 45 minutes!
- Have you spotted the irony yet?

Australian telecommunications history
Telegraphs through telephony to modern digital systems

- Separate Colonial administrations until Federation 1 Jan 1901
- First Australian Morse telegraphy 1854 (WA 1869)
- First manual telephone exch. 1880 (WA 1887)
- First auto (dial) exch. 1912 (WA 1914)
- Great War (WW1) 1914 - 1919
- World War (WW2) 1939 -1945
- Major expansion of Australian telecomm's from 1960 to today
- Australian network – Commonwealth Government monopoly until 1991. Telstra privatised from Nov. 1997
- PMG Dept 1901-1975. Telecom Aust. 1975-1995. Telstra 1995…
- Now Telstra, Optus and Vodafone share the market
- Internet 1990s… NBN 2009… 5G mobile 2019…

Colonial era (19th C)

Status of women: Colonial Australia

- **Feme sole** (O.Fr. "single woman") Unmarried, divorced, widowed etc. Could write a will, enter into contracts, sue/be sued in her own name and dispose of her real estate or personal property as she wished.

- **Once married** a woman's legal existence as an individual was suspended under "marital unity". Husband had almost exclusive power and responsibility over wife's actions and assets.

- **WA Married Women's Property Act 1892**

o Enabled married woman to be capable of holding property and function as a *feme sole*

o Other colonies from 1879 – 1897

- **WA (white) women's vote 1899**

o Other colonies/states from 1894 – 1908

Women's roles in Telecomm's: Colonial Australia (1)

- Not clearly defined. For example 1874 married female aboriginal postmistress/telegraphist Victoria Plains WA who also trained other indigenous women there

- Examples of single and married women as postmistresses and/or telegraphists in WA

- Similar in other colonies e.g. NSW and Vic. examples of single and married women employed in post office duties and as telegraphists etc.

- Female telephonists - From 1887 in WA (single women) but examples of married women supervisors in other colonies.

1880 telephone exchange (Melb.)

Women's roles in Telecomm's: Colonial Australia (2)

Telephonists

"The first telephone exchanges employed message boys to operate the equipment, however, the boys quickly earned a reputation as inefficient, unruly and impertinent, and in an effort to improve customer service these first operators were replaced by women specifically employed for the job.

In 1899 Brisbane Qld, positions were advertised for thirteen telephone exchange switch-board assistants, at a salary of 10 shillings per week, 1671 young women applied. Mrs Dick was appointed as Supervisor."

https://www.slq.qld.gov.au/blog/hold-line-please-brisbane-telephone-exchange

Some 19th C women

Mary Ellen Cuper (1847 – 1877)
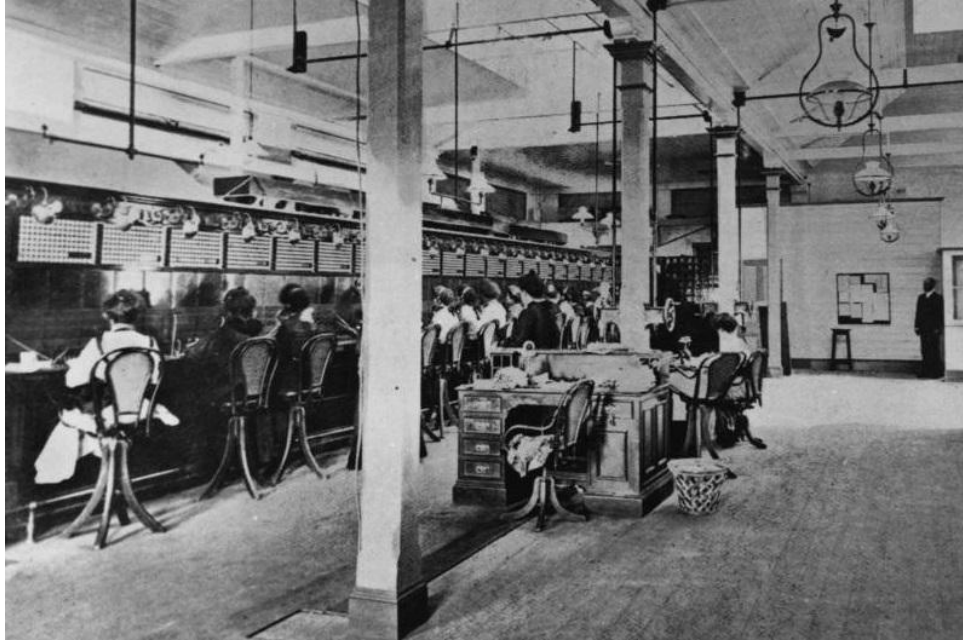## Postmistress and telegraphist

- Born *Ellen Pangieran* in Bunbury to Aboriginal mother *Yanjipp*, Mary was sent to Bishop Salvado's Benedictine mission in New Norcia for education. She married there and became Mrs Cuper

- The new telegraph line to Geraldton via New Norcia required a full-time telegraphist. Bishop Salvado trained and recommended Mary

- The office at Victoria Plains became vacant in 1873. J. C. Fleming, superintendent of telegraphs was impressed with Mary but had misgivings about employing her

- Salvado prevailed. Mary was appointed postmistress Jan. 1874 (annual salary of £30). She also trained other indigenous women as telegraphists who were equally proficient

- Sadly, Mary Ellen died of tuberculosis 12 Jan 1877

Mary Ellen Cuper

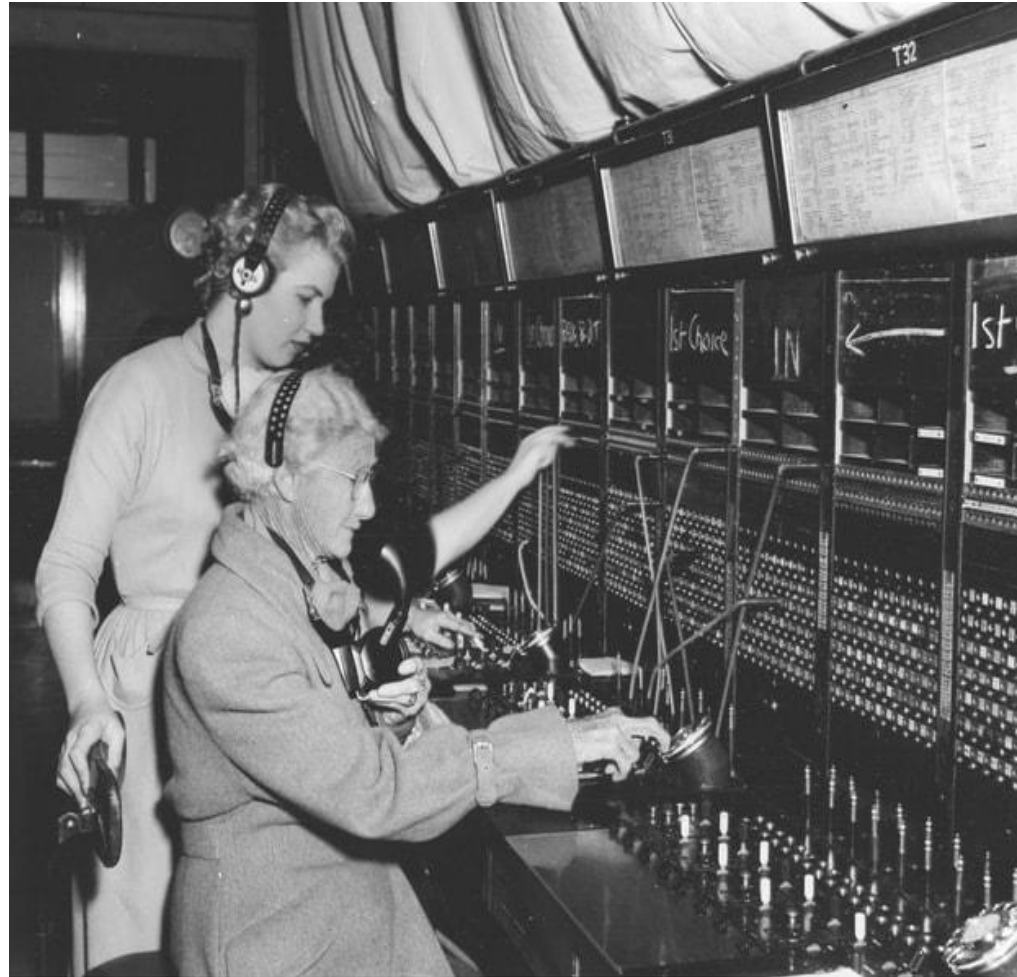# Mrs W H (Magdalene) Dick (1851-1922)
Lady Superintendent of the Brisbane Telephone Exchange in the Colony of Queensland 1899.

Constance Caroline (Connie) Letch (1868 - 1958)

- Born in Manchester England, Connie arrived in WA as a small child with her family in 1872 on the sailing ship "Ivy". She grew up in Perth.

- In Nov. 1887, Connie was appointed telephonist in the newly formed "Telephone Exchange Department" at Wellington St Perth. Appointed at around the same time was Miss Ada Woodbridge and a little later Misses Marie Woodbridge and Minnie Furlong.

- Connie Letch connected Perth's first call on 1st December 1887. She continued with the Department until 1897.

- In 1897, Connie married **John Frederick Carter** and moved away but maintained a lifelong interest in telephony. She is mentioned in several related media reports from 1918 through to 1955.

Connie Letch/Carter (1887 and 1955)

Connie Letch/Carter
1/12/1887

"I arrived at the appointed time to take over my duties and was met by the Superintendent in the Exchange Room. I think two others of the staff were there also. The Superintendent asked me to sit down at the switchboard and he would explain, and then I was asked to operate. My word, didn't I get stage fright! However, the Superintendent was very patient with me and I soon mastered it.

I called up and spoke to the firm of Sandovers and Maiyhew, and that is the only official opening the Perth Telephone Exchange had to my knowledge."

20th C

20th C

Status of women: 20th C Australia (1)

- **Right to vote** 1902 in Federal elections
- **"Marriage bar"** 1902 - 1966 C/wealth public service.
- 1909 -1949 **All** females barred to sit C/wealth Public service clerical exam - limiting promotion *(State administrations similar - WA 1967)*.
- **WW2**
  - Men at war. Many women partially trained as 'dilutees' to provide some, but not all, of the skilled services of qualified tradesmen... 1946 *Tradesmen's Rights Regulation Act* ensured returned tradesmen/apprentices replaced dilutees
  - Married women hired in C/wealth public service but only as "temps"
  - About 70,000 women served in the women's auxiliary military services to release men for the front (about 6000 served o/seas)
  - Example: WAAAFs served as telegraphists, electricians, fitters, flight mechanics, instrument makers, radar operators etc.
  - Most forced to return to domestic life on discharge at war's end.

Status of women: 20th C Australia (2)

1969 ACAC ruling (Unions case to Aust. Conciliation and Arbitration Comm.)

- Set the general female award minimum wage at 85% of the male wage. Recognition of the 'breadwinner' component of male pay rates.

- Stipulated that where men were performing work usually reserved for females, they were entitled to a higher wage than female colleagues

- Equal pay for women where they were assessed as doing *exactly* the same work as men in traditionally male roles.

1972 – 1974 rulings finally granted an equal minimum wage to all Australians, regardless of their sex, and the male 'breadwinner' component removed

1979 National Employment Strategy for Aboriginals (NESA)

1984 C/wealth and WA: Equal opportunity legislation

1999 C/wealth "Equal Opportunity for Women in the Workplace Act"

Women's roles in Telecomm's: 20th C Australia (1)

- **PMG:** 1902 – 1966. Single women only, generally in minor roles – low level clerical or telephonists. Dismissed on marriage (this was supported by C/wealth Telephone Operators Assoc.- CTOA)

- Married women only "temps" in gov't jobs - denied super. etc.

- **WW2:** Women's military auxiliary services – Many were signallers, telegraphists, telephonists etc.

- No evidence found of female PMG telephone mechanics or lines staff during WW2 but many worked in non-technical post office roles incl. post-women and telegraphists

- **Private companies:** Single and married women worked in telecom manufacturing in Australia for most of 20th C (AWA, STC etc)

AWA factory NSW 1924

WAAAF telegraphists at HQ, Wireless Transmitting Station, RAAF Frognall, Canterbury Melb. Vic. ca 1943.

Women's roles in Telecomm's: 20ᵗʰ C Australia (2)

- 1966 C/wealth "marriage bar" lifted - more married women in the PMG. Mostly still telephonists and clerical but also in other areas, e.g. minor technical roles at PMG/Telecom Workshops

- Still significant manufacturing jobs until mid 1990s

- Telecom Australia ca 1980: A few young women start technical careers. Lines staff, Technicians and Technical Officers. Probably no more than dozen in WA by end of 20ᵗʰ C

- Late 20ᵗʰ C. Rapid decline in telephonist numbers (approx 10k in 1958, 6k in 1988). Few thousand in call centres today

- Rising telephonist militancy from 1980s. Coincident with technology change. Appearance of RSI and "shriek" injuries

WA PMG Workshops Crowther St Bayswater 1954
Two female admin staff only

1. D. Foynes	2. B. Green	3. C. Herring	4. R. McKay	5. D. Robertson 6. K. Goff	7. A. Davies 8. M. Jenkins 9. B. Matfin 10. ?
11. T. Heasman	12. G. Dunstan	13. H. Lewis	14. A. Horrigan	15. H. Neat 16. L. Good	17. F. Gardiner 18. J. Beaumont 19. B. Parker 20. Leo Bott
21. T. Eagan	22. R. Thompson	23. F. Jowatt	24. J. Elsgood	25. S. West 26. D. Robertson	27. V. Miller 28. S. Cross 29. C. Lee 30. I. McBride
31. R. Robertson	32. G. Smith	33. ?	34. G. Daymond	35. ? 36. F. McAlinden	37. P. Turner 38. B. Smallpage 39. H. Baker 40. G. Pearson
41. B. Yeatman	42. E. Fairs	43. A. Cole	44. R. Hutchings 45. J. Ogg	46. B. Fisher	47. G. Gregson 48. L. Nickolson 49. B. Carvill 50. G. Grunt
51. F. Fulker	52. S. Calleja	53. A. Fowler	54. N. Morris	55. M. Ettles 56. Sandy	57. T. Weston 58. F. Smith 59. G. Clohessy 60. N. Blackmore
61. J. Mason	62. F. Mitchell	63. J. Skeet	64. A. Watson	65. V. Gertsal 66. B. Gardner	67. T. Wilde 68. B. Foley 69. B. Snodgrass 70. G. Googeridge
71. C. Ryan	72. B. Nottle	73. B. Gardiner 74. J. Hunt	75. N. Manning 76. P. Diamond	77. N. Morris 78. M. Ettles 79. G. Doust 80. C. HoyPoy
81. E. Davenport 82. G. Chipper	83. J. Scott	84. L. Dawson	85. C. Eaton 86. M. Pike	87. J. Elsegood 88. T. Craig 89. D. Whittington 90. A. Cruttenden
91. R. Hawkes	92. J. Thompson 93. J. White	94. D. McKenna	95. R. Stevens 96. L. Martin	97. P. Robson 98. B. Godard 99. ? 100. H. Young
101. J. Anthony	102. N. Dorrington 103. C. Broomhall				

PMG W/Shops NSW and Vic 1970s

Some 20th C women

Some 20$^{\text{th}}$ C women

Miss Alice Ethel Chambers 1885-1970 Postmistress

- Alice Ethel Chambers Entered WA Postal Dept. 1900
- 1915 2IC Waroona PO
- 1917-18 Postmistress Cuballing
- 1921-34 Postmistress Kalamunda
- Her sister Mabel/Maisie (1906-94) was telephonist Kalamunda late 1920s-early 1930s
- Alice and Mabel moved to Cottesloe area 1934. Alice Postmistress Buckland Hill
- Alice active in community, Postal Institute Council and Postal Clerks Union
- Alice retired 1945

Chambers family ca 1922 Kalamunda
Alice Ethel 2nd from R, Maisie R

Doreen Lucy Penrose (1919 – 1972)
Telephonist Kalamunda

- Father served in AIF WW1. Married Emily and stayed on in Britain where Doreen born in 1919

- Family returned to Australia around 1920-21. Living in Kalamunda by 1925

- Doreen working in Kalamunda Post office as telephonist by 1937

- Doreen married Dr Geoffrey John Hall in Bassendean in 1942, moved away, started a family
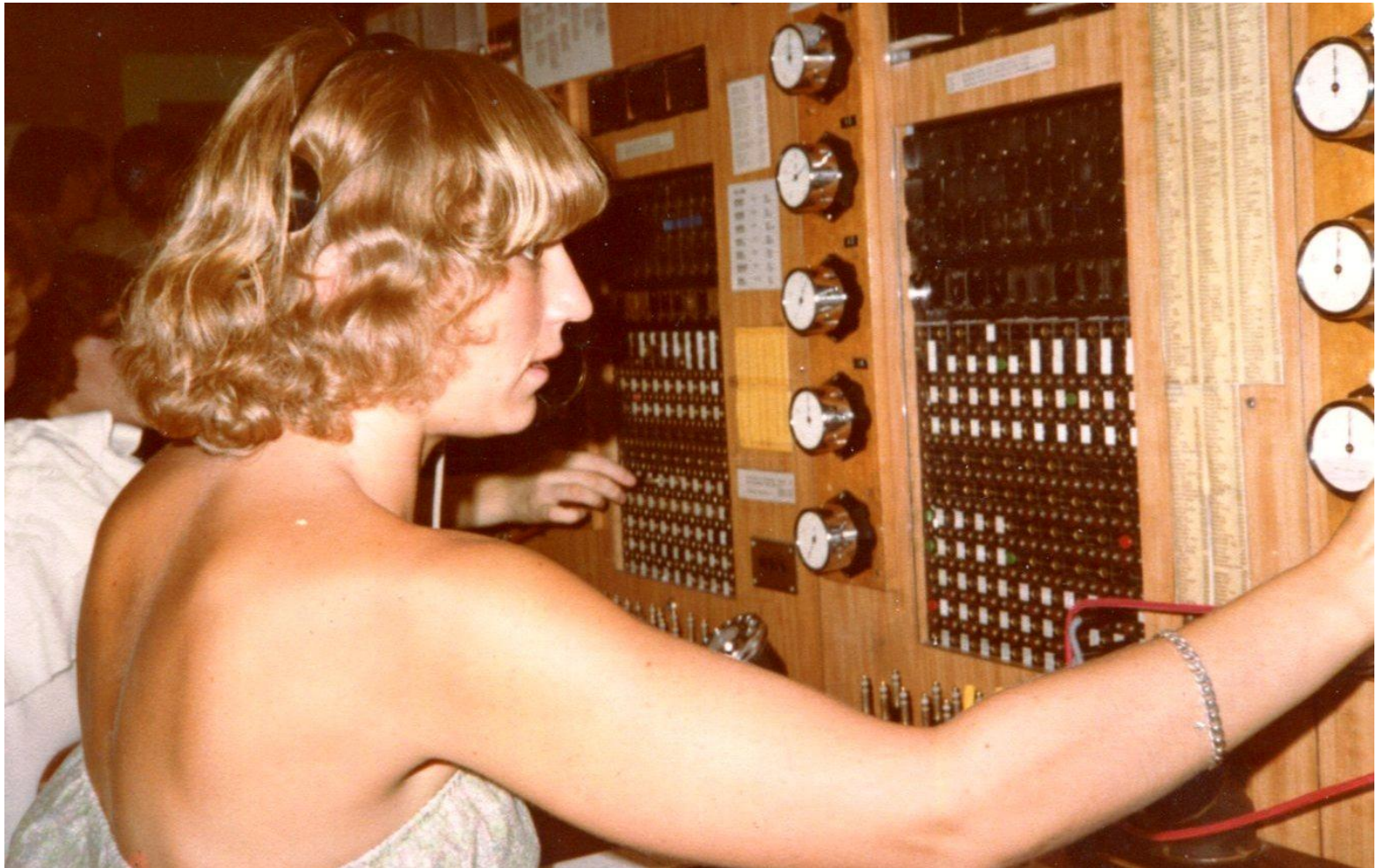
Doreen Penrose 1937

No. 201   KALAMUNDA.— SWITCHBOARD AND ASSOCIATED APPARATUS   27·9·37

Pauline – Telephonist 1975-1981

- Merredin WA Exch. Manual Assistance Centre 1975- 1979. Merredin had automatic exchange but also outlying manual customers and trunk lines

- Joined Telecom Australia as a 16 y/o. Permanent after 3 months probation

- The training was on-the-job spread over about four weeks.

o Switchboard operation to deal with both trunk and local calls.

o Learning, verbatim, standard phrases and protocols.

- In 1979, the Merredin exchange was upgraded and the manual exchange closed. Pauline transferred to Perth GPO as a telephonist until 1981.

- Pauline met her future husband, Jeff, in Merredin. He was a Telecom Technician installing the exchange upgrades that made her redundant! Rekindled their relationship in Perth and they married in 1981. Soon after marriage, she resigned from Telecom and moved with Jeff to several temporary country postings. She re-entered the workforce and worked in various clerical and banking jobs until birth of her children

- When interviewed, *Pauline spoke fondly of her experience as telephonist*

Telephonist Merredin ca 1978

Marie-Anne: Telecomm's Technician

1982: The first female Apprentice Technician in WA (among 1ˢᵗ in Australia)
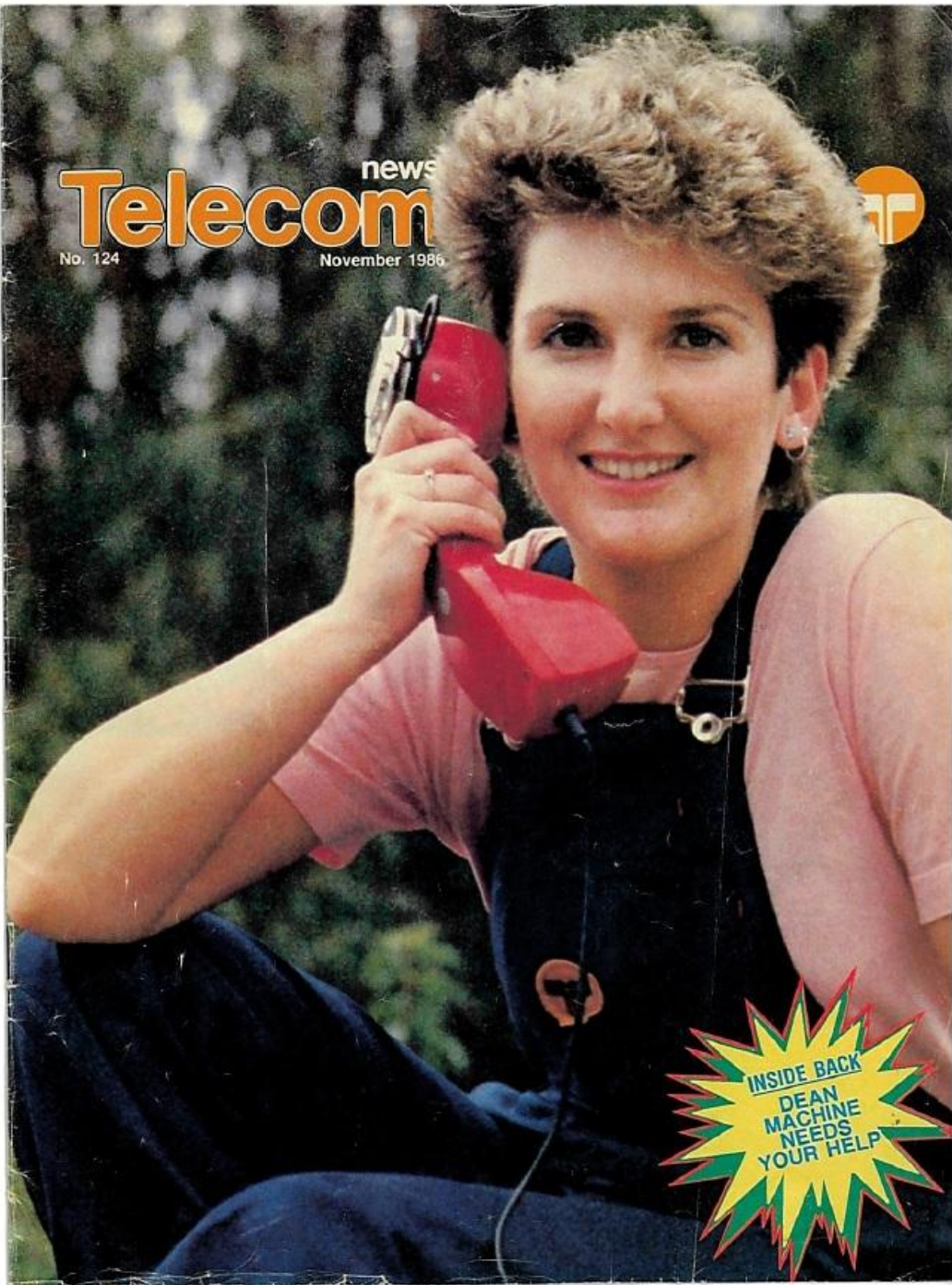
- 8ᵗʰ of 1100 applicants in exam (20 positions). At interview was asked *"Why should we spend so much money on you? You will just get married, pregnant and leave?* Criticised because *"didn't have enough experience with tools" (Marie Anne: "I had plenty of experience with tools on the interview panel")*

- Out on the job with male supervisor, some customers thought she was a wife/girlfriend following her partner around despite her doing the work…

- 1990s pilot programme of "Tradeswomen on the Move", joint Fed/State Gov't initiative - promoting non-conforming apprenticeships to schools, business groups etc. Featured in the newspapers and radio and TV current affairs programmes

- Nationally involved in Culture Change programs in Telecom Training Services as the industry transitioned from Monopoly to the open market

- Went on to work in Sales and Marketing for the intro of digital mobiles - also very few women in that field

- Loved her time as a technician and being a trailblazer although sometimes found it difficult.

Marie-Anne has moved on and is now a health professional in northern WA.

news

Telecom

No. 124   November 1986.

INSIDE BACK
DEAN
MACHINE
NEEDS
YOUR HELP

Debbie: Principal Tech. Officer 1985-2001

- **WA.** 1985 Apprentice Telecomm's Tech, Telecom Australia. Ultimately Principle Technical Officer and 2IC of Telstra's State Transmission Control Centre - WA. Specialist in telecomm's data, television and broadcast transmission systems

- **Some of Debbie's observations**

o *The skills of critical thinking and problem solving transferred into current career*

o *Workplace was a male dominated environment.... Welcomed by some, tolerated by others. Noted older men were nicer to work with, many younger men and fellow apprentices did not behave well and quite derogatory…….*

o *Perhaps the biggest challenge being a female technician (in the early years) was constantly having to justify who/what you were e.g. callers would ask to speak to a technician not a clerk when I answered the fault lines.*

o *Also felt I was constantly having to prove myself as it was assumed or openly commented (upon initial meeting/working with someone) that I was there purely to fill a quota or be the token female – not that I actually had some skills/qualities that made me a good technician.*

- **When asked if would recommend similar career to young women**. *Yes I feel younger men are more accepting now and the industry has more women in it. The skills and experience I have had have been amazing and formative to the person I am today*

Nicky: Communication Officer 1987-2007

- **WA.** 1987 Trainee Telecomm' Installer. Progressed to multi-skilled communications officer. Range of tasks during career from residential and business systems faulting and installation to dispatching and work programming

- **Some of Nicky's observations**

- *Only female technician South of the river for approx. the first 8 years….*

- *Was hard for the first 4 years…. I felt that I needed to work hard to prove myself, that I could do the job and did not need to be "babysat".*

- *Once I had proved that I could do my role, I was accepted into the male culture of mateship. Overall, my experience was great, I made a lot of friends, learnt a lot of skills, loved the role I did….*

- *Often got mixed reviews from customers, from all ages and sex. People would ask if I could do the job. They would be worried about me going on/in their roof, running cables, even down to digging holes/trenches….*

- **When asked if would recommend similar career to young women**. *I would always recommend this role or similar for females. Not everyone is suitable for this role, though it is ever changing with how communications is being delivered.*

Simone: Principal Tech. Officer 1982-1999

- **NSW.** Telecom Australia 1982 Tech. Officer in Training, ended up as a Principal Tech Officer Grade 3. 1999 only female PTTO3 in Telstra.

- Career: TAFE Diploma and Telecom trained. Tech. Officer in exchanges, PTTO in Training Centre teaching AXE exchanges PTTO3 in Telstra System 12 National Switching support. Voluntarily redundant in 1999

- **Some of Simone's observations**

o *Only female trainee in my group, only female technically trained person in the exchanges, only female Technical Instructor and only female in S12 National Switch Support, however there were some AXE support female engineers…..*

o *In Telecom/Telstra I mostly felt welcome. There were some guys who didn't believe females could do the job, it never really bothered me as I knew I could (and possibly better). I actually preferred the atmosphere when I was the only female (maybe I was spoilt a bit) although it is a more social work environment when there is a balance.*

- **When asked if would recommend similar career to young women**

   Now days there is definitely no reason for females not to do Engineering and work in tech. …. As far as I know there is no pay inequality which is a great thing.
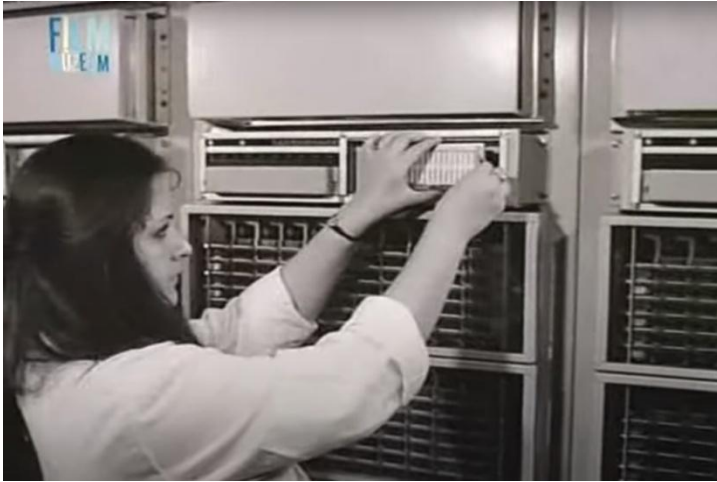
21st C

Status of women: 21st C Australia

- Fair Work Act 2009

- Equal Opp. for Women in the W/place Amendment Act 2012

- Women are poorly represented in the STEM workforce and earn less than their male counterparts

- BUT greater % in higher education than males

- Females only 3% of electrotech/telecomm's trades, 1% of construction, engineering and automotive trades (2018)

- Only 12% of ALL Engineers are female (2021)

- Only 29% female in ALL ICT occupations in Australia (2020)

- Gender pay gap varies (2021). WA >21% to ACT, SA <8%

Australia compared to some other countries

- *Middle East.* Female STEM Uni. Grads.
- o Iran: 69%, Oman, Saudi Arabia, and UAE: 60%
- *UK* Female trainees (2019)
- o 9% in engineering and manuf. trade apprenticeships
- o 16% in engineering and manuf. Degree-level education
- *USA* Women in technology (2016 – 2019)
- o 26% in computing jobs
- o 20% Chief Information Officers in major companies
- o 8.0% of all Telecom Technicians
- *China.* Less than 30% female STEM students? One child policy?

1971: Budapest Hungary Crossbar telephone Exchange
2020: only about 10% of their IT workforce is female!

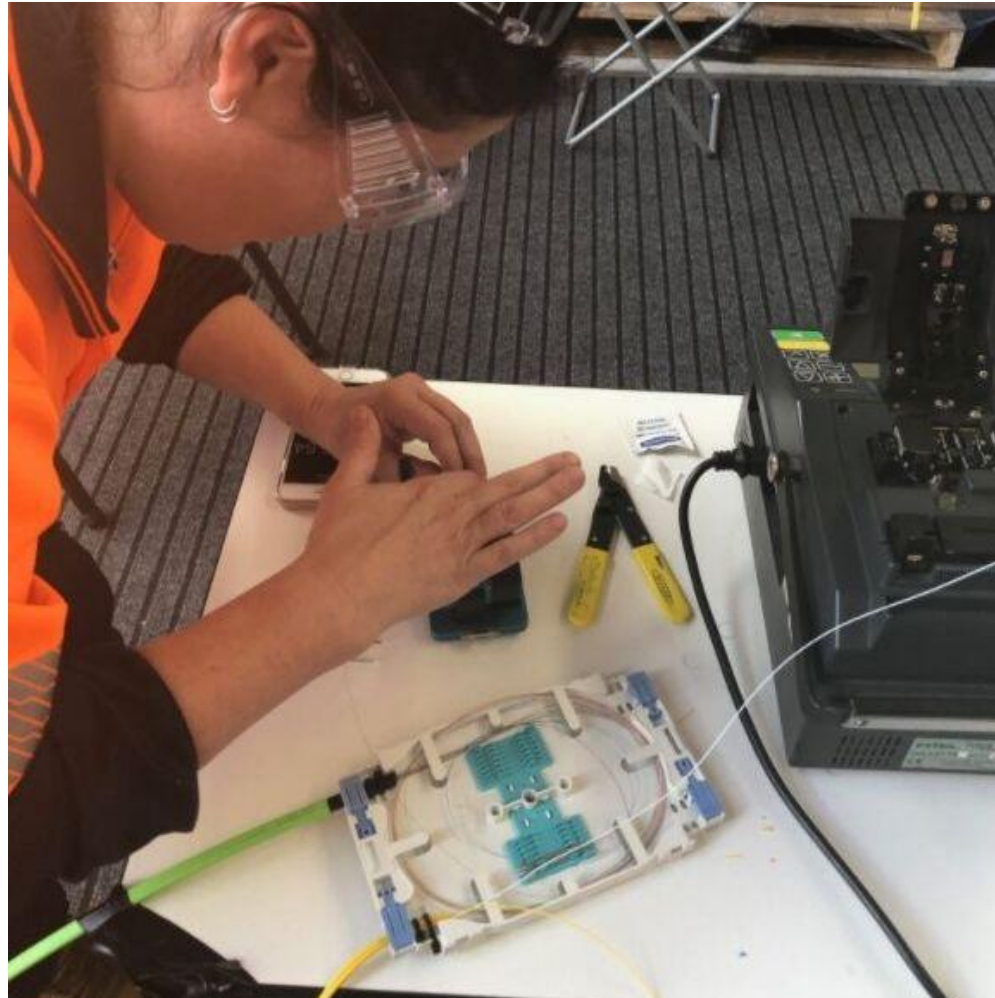# 20th Century Recap

- Telecommunications comprised; telegraphs, telephony and, later, digital data systems and mobile telephony. Mostly public sector employer

- Work roles were clearly defined e.g. telephonist, clerk, linesperson, technician, professional engineer and later, IT personnel

- Many manufacturing jobs were available in the private sector

21ˢᵗ C Australian Telecomm's:

- Old analogue technology and related jobs are gone. Digital data systems and mobiles prevail

- Major manufacturing all gone

- Mostly private sector employers

- Work roles and boundaries are blurred

- Many jobs shifted overseas (although many Telstra call centre jobs returned to Aust. in 2020s – through combination of Covid19 and customer complaints)

- Some questionable employment practices

- Less jobs in telecomm's overall e.g. Telecom Aust 1980 >80 000. Today Telstra + Optus + Vodafone + NBN staff total approx. 45 000

Some 21st C women

(2019) Tammie Fuller; Trainee Technician in the NBN Vic & Tas field operations team https://work180.com/en-au/blog/traineeships-in-a-male-dominated-environment

Simone – Continued (1999 -2020)

- **1999 – 2003. Vodafone Globalstar (USA Satellite co.)** Senior Engineer through to Ops. Manager. Australia-wide. *There were two other females engineers in the team, and **many** in Vodafone. A rewarding episode in her career*

- **REACH 2003 -2004** (Joint venture Telstra and Hong Kong Telecom). *Similar to past Telstra job. Again the only female. This job was not very rewarding*

- **Optus 2004 – 2020**

  Mobiles Product Engineer through to Programme Manager. *Only female in team, but a few others in the dept.*

- **Some of Simon's observations on Optus**

o *I was always respected for my technical capability, and being female did not present any hurdles for me at all.*

o *I worked with a few female Project Managers, however few had an engineering background.*

o *A reasonable number of female Engineers in Optus. However there is a long way to go. It is still a male dominated field.*

KELLY BAYER ROSMARIN
Chief Executive Officer, Optus 2020 -

- Scholarship at prestigious Stanford University in USA. Bachelor of Science in Industrial Engineering, Master of Science in Management Science and an award for being the top Masters graduate.

- Career began in Silicon Valley with exposure to start-up and established software companies

- Management consultant with the Boston Consulting Group, joined Commonwealth Bank 2004 and held a variety of senior roles - appointed to the Bank's Executive in December 2013.

- Left CBA 2018 after passed over for CEO.

- Optus; Dep. CEO 2019. CEO 2020

Telstra CEO Andrew Penn stepping down, succeeded by CFO Vicki Brady Sept. 2022

Conclusion

- Women suffered significant, *officially sanctioned*, workplace discrimination right up to the late 20th Century

- Women were (are) significantly under-represented in telecommunications and later ICT roles

- They are under-represented in other technical and engineering roles. Particularly at trade levels

- Where to from here?

Thank You!

Presented with thanks to the following information sources

This is a free public activity. No copyright infringement is intended

- Pauline Marie-Anne Nicky, Debbie and Simone
- https://oldaustraliantelephones.weebly.com/
- https://theconversation.com/the-female-tradie-shortage-why-real-change-requires-a-major-cultural-shift-97091
- https://www.wgea.gov.au/publications/gender-equality-workplace-statistics-at-a-glance-2022
- https://insidestory.org.au/the-long-slow-demise-of-the-marriage-bar/
- https://viewer.slv.vic.gov.au
- https://recordsearch.naa.gov.au/
- https://express.adobe.com/page/HTZqW/
- https://www.slq.qld.gov.au/blog/hold-line-please-brisbane-telephone-exchange
- *Fifty Million Rising: The New Generation of Working Women Transforming the Muslim World*. 2018**.** S. Zahidi
- *Clear Across Australia 1984* Ann Moyal
- https://telegramsaustralia.com/Forms/Colonial/West%20Australia/The%20lines/WA%20northern.html
- https://adb.anu.edu.au/biography/cuper-mary-ellen-12873
- https://www.nteu.org.au/article/Gender---higher-education-stats-2020-%28Agenda-28%29-22341
- https://www.businessnewsaustralia.com/articles/telstra-ceo-andrew-penn-steps-down--succeeded-by-cfo-vicki-brady.html
- https://www.optus.com.au/about/corporate/executive-profiles
- https://en.wikipedia.org/
- https://www.awm.gov.au/
- https://melbourne-cshe.unimelb.edu.au/__data/assets/pdf_file/0012/2894718/Gender-Enrolment-Trends-F-Larkins-Sep-2018.pdf
- https://www.industry.gov.au/data-and-publications/advancing-women-in-stem-strategy/snapshot-of-disparity-in-stem
- https://www.youtube.com/watch?v=dA8-lG2Dpg0 Ericsson telefonközpont Lágymányoson – 1971
- https://www.oneidentity.com/community/blogs/b/life-at-one-identity/posts/women-in-tech-the-history-barriers-and-benefits-of-inclusion-in-it
- https://www.nbnco.com.au/content/dam/nbn/documents/about-nbn/reports/financial-reports/nbn-co-annual-report-2021.pdf
- Select Committee on Job Security Submission 194 https://www.aph.gov.au/DocumentStore.ashx?id=ae9b6285-629d-428b-998a-360f8909b0f5&subId=713618
- https://www.telstra.com.au/content/dam/tcom/about-us/investors/pdf-g/Telstra-WGEA-Public-Report-2021.pdf
- https://espace.library.uq.edu.au/data/UQ_158095/n02content-Rickertt-jefferey.pdf