The telegraph and the beginnings of telemedicine in Australia

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The Tyranny of Distance

Image of GB - The Age

Communications Technologies - from 1780s

1780 1790 1800 1810 1820 1830 1840 1850 1860 1870 1880 1890 1900 1910 1920 1930 1940
Optical telegraph
Telephone - Schilling, Morse
Wireless - Tesla, Marconi
RFDS
1879


1876

• Mr Watson - come here, I want you.

1860s - telegraph

• American Civil War
  - Care of wounded
  - Arranging transport


The tyranny of distance


Image of GB - The Age
Getting the news

The glories of the telegraph as a fast carrier of messages between Australia and Europe was fairly obvious by 1872. The quickest way of scattering news from Aus-
tralia and the world was still by sea. The
industrial revolution brought a new
sight to the telegraph which was inau-
gurated to Australian affairs had opened
the door to Australia to bear the load
while from Europe and America. The use
of the telegraph was a major advance in
news and the efficiency of the system
was improved by the introduction of
new techniques. The telegraph was an
important step in the development of
the telegraph industry and the first one
in the world. The opening of the
telegraph offices opened the way for
new business and a new era in
communication. The news from Europe
had mostly reached across
land and sea until the end of the 19th
century they had covered more than half
the distance in the same Australian
years.


The Barrow Creek incident

In February 1874 some of the telegraph men at
the Barrow Creek office, out in the nowhere 1200 miles
from Adelaide, were attacked by aboriginals and wounded.
The news of the attack was transmitted south to the next
telegraph office, and so from office to office until it reached
Adelaide. A doctor was hastily summoned to the Adelaide
telegraph office, and medical advice was transmitted back
to Barrow Creek. One of the telegraph men was dead,

Sunday 22nd February, 1874

This Station has been attacked by natives at B. Stapleton has been mortally wounded, one of the men, named John Franks, just died from wounds. Civilised Native Boy has had three spear wounds. Mr Flint, assistant operator one spear wound in leg, not serious. Full particulars in morning.

Monday 23rd February, 1874

• "... We are informed by Mr. Told that during Sunday night Dr. Charles Gosse at his request attended at the Telegraph Office and gave instruction as to the proper treatment of the wounded."

James Stapleton

• After four years at the Katherine River station, he was travelling on the 2,000 mile journey to Adelaide for a reunion with his wife and four young children.
• At Barrow Creek he found the resident stationmaster seriously ill, so he sent him on to the city for treatment and elected to occupy his position until a replacement could be organised.

Monday 23rd February, 1874

• "... and up to about 11 o'clock all were progressing favorably. Later in the day, however, a change for the worse took place in Mr. Stapleton's condition, and notwithstanding all the aid that it was possible to render him, he sank under the effect of his injuries, and died, very quietly, at a quarter to 6 o'clock in the evening."
Monday 23\textsuperscript{rd} February, 1874

\textit{to Burrow Creek. One of the telegraph men was dead, and another was dying, and as the wife of the dying man was...}

\textit{...and another had been working on the telegraph line. They were both taken to the telegraph office, where they received treatment...}

\textit{...and the doctor diagnosed a ruptured urethra. The operation was conducted using a pocket knife and razor...}

\textit{...and under instruction over Morse code.}

Remote WA - 13\textsuperscript{th} August, 1917

\begin{itemize}
  \item Jimmy Darcy - internal injuries after fall from horse.
  \item Taken to Fred Tuckett - telegraphist at Halls Creek, who had some 1\textsuperscript{st} aid training.
  \item Dr John Holland in Kalgoorlie diagnosed rupture of urethra
  \item Operation needed
  \item Conducted by Tucker using morphia, pocket knife and razor, under instruction over Morse code
\end{itemize}

RFDS - 1929

\begin{itemize}
  \item Inspiration for John Flynn to set up the RFDS in 1929
  \item Alfred Traeger - engineer and experimenter in Adelaide
  \item Developed the pedal-powered wireless
  \item 1932 - keyboard
\end{itemize}
The beginnings - what could be done

- Advice for the wounded
- Care for the family
- Remote surgery

Today...

Necessity is the mother of invention

- Our situations encourage us to innovate
- The most basic means of telecommunication can be used for telemedicine
- Use what you have at your disposal - people, networks, equipment