

## Behind the Legend

### A new and comprehensive biography of Charles Todd

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**Abstract:** In 2017 a new biography, *Behind the Legend - The Many Worlds of Charles Todd*, by Denis Cryle, was published. The biography seeks to provide a more complete understanding of Charles Todd beyond the single achievement for which he became most famous – the building of the Overland Telegraph Line linking Darwin and Adelaide in 1872. The biography lives up to its promise and sets out in considerable detail the contribution that Todd made in many fields during his long lifetime and period of public service. Those fields include astronomy, meteorology, telegraphy, telecommunications more generally, public administration, and contribution to the processes of federal coordination and cooperation. Todd's fame and legacy have been heavily bound up with the construction of the Overland Telegraph Line. As Cryle notes, he was dubbed 'Telegraph Todd' by the media of the day.

It is the stated purpose of Cryle's biography to do justice to Todd across the *full* range of his achievements. I think that Cryle succeeds admirably. He has written an engaging book that is thoroughly researched and referenced. It will appeal both to historians and to the general reader without expertise in any of the scientific or technical fields inhabited by Todd.

**Keywords:** Book review, Charles Todd, telegraphy, meteorology, astronomy, Adelaide, public administration, standard time.

## Introduction

A new biography of Charles Todd by Australian academic Denis Cryle should be of interest not only to the reader interested in special areas of expertise associated with Todd's career and contribution, but to the general reader as well.

The biography is *Behind the Legend – The many worlds of Charles Todd*, and was published in 2017 by Australian Scholarly Publishing.

Cryle has a number of aims in writing this well researched book, and the most important, as the title suggests, is to ensure that a complete biography, which describes the wide diversity of Todd's interests and contribution, is written. Previous biographies have tended to concentrate on the Overland Telegraph Line linking Darwin and Adelaide. Many studies of Todd have mentioned his contribution to meteorology, astronomy and public administration, but as very much secondary to telecommunications – and to telegraphy in particular. This is hardly surprising, since they are reflecting the media focus of Todd's time and the main focus since. However, as Cryle notes, more recently historians have rectified the situation to some extent.

The introduction to the biography carefully reviews the changing approach to Todd's profile over the years. An overview of that changing profile appears in Cryle's article in this issue of the *Journal*. He notes Kevin Livingston's comment that Todd was 'well on the way to becoming a legend' by the age of 46 – that is, by the time of the successful completion of the Line in 1872. He also indicates how Todd's reputation and influence grew within his lifetime – within South Australia, at the inter-colonial level in Australia and also internationally. It becomes clear that Todd was a consummate networker and developed a wide range of professional and personal associations that were typically deep and lasting over the course of his long life. In the end he outlived many of his associates. He worked as an eminent civil servant until his 80th year and died in 1910, aged 83. Cryle also demonstrates in his introduction – and in the article in this issue of the *Journal* – how Todd's profile has evolved since his death, and how more recent historians have 'done much to revive Todd's reputation in meteorology' for example (Cryle 2017, p. 10).

## Structure

The biography is very well structured to develop certain themes that occupied Todd's life at various stages, but always with the reminder that other matters are progressing and developing in parallel. In this way, Cryle successfully maintains a connected narrative of Todd's life but also maximises the focus and understanding of the key issues at any given stage in that life. This approach of overlaying themes on the timeline is most effective. After reading the book, I think that no other structure or organisation of the voluminous material could have worked as well.

The biography is organised into three Parts:

- Part I (1841-55) deals with Todd's early years in the British civil service and his employment at the Royal Observatory in Greenwich; and his introduction to telegraphy as a means of developing accurate time measurements.

- Part II (1856-86), in which he is located in Adelaide and oversees the building of the Overland Telegraph Line. Also in this period there are many other matters that occupy Todd and to which he makes a lasting contribution, including the reorganisation of the Posts and Telegraph department in South Australia and the establishment of the Adelaide Observatory.
- Part III (1887-1910), in which Todd continues his major contributions to postal administration, telecommunications, meteorology and astronomy, but also transitions from colonial to federal civil service.

In all of these periods Todd had to deal with a vast array of people and issues, and in this he demonstrates considerable skill and effectiveness – including in dealing with difficult or demanding masters, ranging from academic bosses such as Sir George Airy, the Astronomer Royal, to the many colonial and federal counterparts (some cooperative and some competitive) and to the politicians of the times, especially in South Australia but also in other colonies and later at the federal level. In the overwhelming majority of cases Todd developed respectful professional and, often, personal relations that lasted for the long term. There were exceptions.

Cryle notes that Todd's early years in the UK and last years have been 'neglected' by historians, on the whole, and he makes good the oversight.

Cryle also makes the interesting claim, one that is well supported by the material in the biography, about the importance of astronomy in understanding Todd's life: 'Less visible as the nocturnal component of his career, astronomy was to remain an important unifying principle across the different phases of his life' (Cryle 2017, p. 11).

## Making good from humble origins

One theme of universal appeal to the general reader is that Todd was of humble origins and that his achievements were borne on the back of persistent hard work. No expectation based on privilege was involved in the least. His father's business as a grocer was precarious. Todd's formal schooling ceased at age 15 and he went to work as a 'computer' at the Royal Observatory, Greenwich, then ruled by George Airy, the Astronomer Royal, undertaking calculations of the location of planets when observed at various times. Cryle describes the conditions and strictness of the working environment that Todd experienced as he laboured for 8 hours each winter day and for 12 hours in summer. Todd's vital opportunity came when he was appointed as a junior assistant in the observatory at Cambridge. It was while posted at Cambridge that Todd worked on improving the accuracy and distribution of time signals via telegraph between observatories and other observation points.

It was this experience that led Airy to require Todd back at Greenwich from 1854 where his duties involved detailed collaboration with the Electric Telegraph Company and railway companies in joint time distribution projects. The railways wanted to establish regular scheduled service based on accurate time distribution.

Cryle describes in some detail how the work progressed and the initiative demonstrated by Todd that raised him considerably in Airy's estimation and singled him out for the next assignment – a position in the colony of South Australia as superintendent of electric telegraphs 'with desirable experience in astronomical and meteorological observation' (Cryle 2017, p. 49).

## Adelaide and the 'great work'

Part II deals with the middle years of Todd's career in Adelaide, from 1856 until 1886, and the planning and construction of the Overland Telegraph Line. Cryle's coverage of the issues that had to be overcome leading up to and during construction is comprehensive and, if this was the main purpose of general readers in consulting the book, they would not be disappointed. The coverage of other aspects of Todd's career is not at the expense of a sound rendition of this central achievement. At this time Todd's capacity for first-class project management and administration is on display, as well as his readiness to take charge in the field, when he stays encamped on the Roper River for months to address the problems of the northern section construction. Of particular interest is the politicking between the colonies, and especially the competition that emerged between South Australia and Queensland to build a telegraph line, as well as the cable politics played out at the Imperial level between companies in London. The description of the cable politics of the era, which went on for the remainder of Todd's career, is one highlight of the book.

## Astronomy and Meteorology

As Postmaster General, Todd was the person primarily responsible for the establishment of an astronomical Observatory in Adelaide. It was located on West Terrace adjacent to the extensive parklands in that area at the time. (It has since been demolished and the site incorporated into the grounds of the Adelaide High School.) After slow progress, the building was completed in 1860. Equipment had to be shipped from the UK, although Todd showed innovation and flair in sourcing some materials locally.

In the colonial era it was normal for Observatories to undertake astronomical observations and to record meteorological events, with limited weather forecasts to assist farmers and others with special interest. It was only later, during the Commonwealth era, that a separate bureau of meteorology was established. As Cryle notes, Todd and others were well aware that

the popular interest was in the weather and that astronomy was the poor relation when it came to public funding. Todd was not averse to cross-subsidising within his diverse portfolio as Postmaster General, and astronomical observations were funded off the back of meteorology and more general expenditures. He therefore opposed the centralisation of separate State weather operations into a single Commonwealth bureau, and would have had the proposed new central body undertake 'theoretical and scientific research' concerning 'the dynamics of the atmosphere' (Cryle 2017, p. 220). Todd's view prevailed at a conference of State delegates in May 1905, but that view was, in turn, effectively ignored by the Commonwealth (Cryle 2017, pp. 219ff.).

Cryle makes a very compelling case throughout the biography that astronomy was of fundamental importance to Todd and serves to provide a link from the earliest days of his career until the very end. He participated in global cooperative efforts, usually involving the Greenwich Observatory, to observe various transits of Venus, eclipses, comets and many other astronomically important events. Multiple observations were important not only to overcome local issues associated with cloud and weather, but also for basic calculations. Accurate timing was equally critical.

## The weather wars

Another theme that is well documented in the book, and one that will resonate with the general reader, concerns the weather wars in the period from the 1880s to the early twentieth century. Today we are all used to the notion of competing forecasts offered by different media, but they tend to have a common base in Bureau of Meteorology data. Quite often the competition is in the presentation or the length of the forecasts, rather than the substance. By the early 1880s each of the colonies had established its own network of weather stations to report meteorological data. The data was distributed free of charge via the telegraph service. This established arrangement was disrupted by a Scotsman 'armed with a towering ego' (Cryle 2017, p. 204) named Clement Wragge, who set up his own independent network of self-registering stations which he planned to extend across Australia, starting in South Australia. Wragge was later appointed as the Queensland meteorologist, in 1887.

Cryle notes that 'Wragge's long and turbulent colonial career was marred by ongoing professional controversy, which thrived on confrontation and self-promotion' (Cryle 2017, p. 205). There is nothing new under the sun – contrarianism and notoriety have been the staple building blocks of many careers before and since Wragge.

Wragge broke with colonial consensus by issuing his own national forecasts in the late 1880s, and was very skilled in telegraphing them to media in all colonies. He wanted the

same telegraph subsidy for his forecast distributions that each of the colonies afforded to each other. He also courted public opinion very well, because farmers wanted forecasts and the colonial meteorology units were loath to provide anything other than very short-term predictions. Todd, for example, was reluctant to stand by the accuracy of his forecasts 'beyond one or two more days' (Cryle 2017, p. 207).

I don't want to spoil the story that Cryle tells so well by repeating here how it played out. However, the controversy over competing national and local forecasts, and the Wragge incursion, continued well into the Commonwealth period with the establishment of a centralised bureau and the departure of one of the key protagonists.

## Time Lord

The general reader might also be interested in the time wars that preceded federation, and of the key role played by Todd. Cryle entitles chapter 11: 'Time Lord: Todd's Elusive Pursuit of Standard Time in the 1890s'. Standardisation of time was important for telegraphy and other forms of communication, general commerce, shipping and railway operations. But there were a number of competing ideas about how it should be accomplished. At an inter-colonial conference in 1891, Todd recommended an hour zone system as well as a uniform standard time for all Australian colonies.

We have become used to adjusting for time changes since the progressive re-introduction of daylight saving time in Eastern and central Australia from 1968. However, none of these arrangements are anything like the change advocated by Todd, with a uniform time across Australia, based on the time at the 135th meridian (west of Adelaide). The three time zones that emerged, contrary to Todd's view, resulted after considerable public debate and media attention. The result was not inevitable, and was itself modified later for South Australia as a result of commercial pressure.

In this instance Todd was on the wrong side of history and his arguments seem particularly pedantic based on the differences between solar time and time on a clock. He seems to have underestimated the social importance and dimension of time. Adaptation to a uniform time across Australia would have affected the eastern colonies and Western Australia, but not South Australia. However, even though uniform time was rejected, standard time zoning was established.

## Cable wars

It was one thing to build the Overland Telegraph Line, but quite another to keep it operating on a commercially viable basis. This ongoing struggle, and Todd's long-term success, is another theme that might resonate with the general reader. The issues of recovering capital

and maintenance costs associated with major public infrastructure certainly have parallels with many other projects in Australian telecommunications history, including the NBN.

Todd was required to balance two potentially conflicting objectives – reducing retail telegraph and telegram prices on the one hand, and obtaining sufficient revenue to operate essential infrastructure on the other. This challenge applied to postal services in South Australia as well. The problem as we all know is that any price system that is carefully balanced for the longer term is vulnerable to technological and commercial disruption. So it was with international cable projects.

The Overland Telegraph Line was built as an extension to the colonies of the cable system that was operated as a monopoly by the British Australian Telegraph Company under the long-term direction of John Pender. Later cable projects, such as the Pacific cable project, were a major commercial threat over the following three decades, as was the potential for wireless communications as a result of Marconi's work.

## The advancement of science

Cryle describes a range of activities that Todd initiated or supported that were ultimately about the advancement of science, not only in South Australia. The book describes his work in supporting the Australasian Association for the Advancement of Science (AAAS) from its formation in 1888. The building of the Adelaide Observatory has already been mentioned. As well, he served for a long period on the councils of Adelaide University, often in company with his son-in-law, William Bragg.

## Conclusion

Cryle has provided a rounded portrayal of Todd, and has filled out the many other aspects of Todd's long and productive life. In the process, he has also provided a very comprehensive description of Todd's personal life and of the various members of the Todd family, as well as of the circles in which they moved. One therefore develops a good sense of the context and the times in which Todd lived and how he contributed to and helped shape them.

I have not discussed in this short review many of the other themes that Cryle considers, but they should also be mentioned. For example, the transition from colonial administrations to the Commonwealth, especially in relation to meteorology and posts and telegraphs, was fraught with politics, false moves and general mayhem. The treatment of many colonial public servants in the new federal system was very poor, and the quality of administration plunged for at least a decade.

Denis Cryle has produced a very thorough and highly readable account of the life of Charles Todd and I commend it to general readers as well as to those with particular interest in specific aspects of Todd's life and contribution.

## Reference

Cryle, D. 2017. *Behind the Legend – The Many Worlds of Charles Todd*. Melbourne: Australian Scholarly Publishing.