

Melbourne School of Psychological Sciences

Social Networks Lab

Complex Human Data Hub

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Relational Event Models - An Introduction to Survival Modelling of Relational Data and Time-Stamped Networks

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Summary

Relational event data are time-stamped events in continuous time that are of a type where one actor does something to another actor. The occurrences of events are traditionally modelled using standard survival analysis techniques but where the past relational history may be taken into account when defining the rates at which events happen. There is a strong connection to network analysis in that when events are aggregated in time, using e.g. sliding time-windows, the patters of pairwise event histories form network graphs. There is also a strong connection to so-called conversational analysis, whereby for example the probability of the next event might be more likely to be actor B responding to actor A than any other act of speech, if the last act of speech was A addressing B. This workshop will introduce the basic data structure, the fundamentals of relational event models, provide some hands-on worked examples, as well as provide some illustrative examples and an outlook to different implementations.

Preparations

To get the most out of the workshop, please have a look at the seminal article

Butts, C. T. (2008). A Relational Event Framework for Social Action, Sociological Methodology, 38: 155-200

Bring a laptop with the program R installed as well as the R-libraries

sna

network

relevant

Have a look at Tore Opsahl's tutorials: toreopsahl.com

Looking forward to seeing you there!

EVENT DETAILS

Date: Wednesday, 11 December 2019

Time: 12:30 – 5:00pm

Venue: Oscar Oeser Room 1120 Redmond Barry Building

Enquiries: enteremail@unimelb.edu.au

Bookings: mmosing.eventbrite.com.au

Social Networks Lab Melbourne School of Psychological Sciences REM workshop

Wednesday 11 December | Oscar Oeser Room 1120, Redmond Barry

AGENDA		
12.30 – 1.10pm	 Introduction (40 mins) Data structure Example data set Key patterns P-shifts Long-range patterns 	Instruction
1.10– 1.40pm	Basic modelling framework (40 mins) - Standard REM o Rates o Survivor function o Dependence on the past	Instruction
1.40 – 2.10pm	Modelling example (30 mins)	Practical
2.10 – 2.40pm	 Football passing (30 mins) Difference between short-range and long-range dependencies passing on content and sequence of events bounded and un-bounded actor set 	Illustration
2.40 – 3.00pm	Coffee break (20 min)	
3.00– 3.30pm	 More general REM (30 mins) Different types of events Different types of past conditioning 	Instruction/practical
3.30 – 4.10pm	 Outlook (40 mins) Overview of other models Orientation to other programs/packages 	Instruction
4.10 – 4.40pm	 Masterclass: Applying REM to film dialogue networks (30 mins) Introduction to data and RQs Basic set-up Results and interpretation 	Instruction
4.40– 5.00pm	Summary, questions, and end	

For more information about lab, visit http://edu.au/research/msps-research-groups/Social_Networks_Laboratory/lab