

Networks & Sports Workshop

# Social Network Analysis - A Primer for Sport Scientists

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## 1 Assignment 1 - Handling Network Data

### 1.1 Task 1

1. Enter the network in Figure 1 as an edge list in R.
2. Convert the edgelist to a matrix (using a loop; **Do not use the igraph-package**).
3. Plot the network (with the arrows, i.e., directed).
4. Nodes  $a$ ,  $f$ ,  $e$ ,  $c$  are all 'smokers', color these nodes blue. Create an attribute-file for your data and add a smoker-variable. Plot the network again. Make sure you include a legend.

### 1.2 Task 2

XXHELGA-DATA

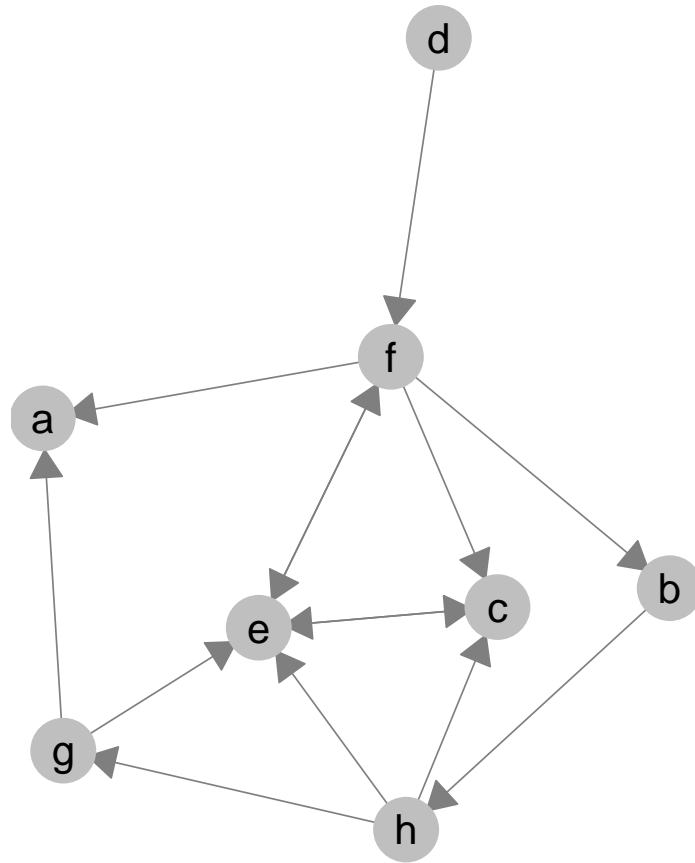


Figure 1: Random directed network

## 2 Assignment 2 - Calculating Centrality Scores

XXHELGA-DATA

### **3 Assignment 3 - Running a Network Autocorrelation Model**

XXHELGA-DATA