



以資料探勘方法分析運動智慧手環資料

指導教授:廖強棋 老師

組員:周曉旭 1061050002、鍾光原 1061050001

姚勇毅 1061050029、羅順聖 1061050042

壹、摘要

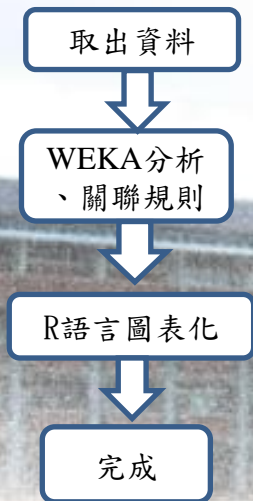
智慧手環的發展屬於近幾年來備受大眾關注的焦點之一，但是大多數人並不清楚隱藏在我們身體中的數據。藉由手環的幫助，我們可以蒐集到各項身體數據，並加以理解人體所發出及蘊含的訊息。

貳、WEKA分析、關聯規則

Format Result	Support	Confidence	Interest	Gain	Conviction
1. [L1] [L2] => [L3]	0.12	75.23%	2.47	0.12	2.29
2. [L1] => [L2]	0.08	66.67%	1.43	0.03	1.43
3. [L1] => [L3]	0.08	66.67%	1.43	0.03	1.43
4. [L1] => [L2]	0.08	66.67%	1.43	0.03	1.43
5. [L1] => [L3]	0.08	66.67%	1.43	0.03	1.43
6. [L1] => [L2]	0.08	66.67%	1.43	0.03	1.43
7. [L1] => [L3]	0.08	66.67%	1.43	0.03	1.43
8. [L1] => [L2]	0.08	66.67%	1.43	0.03	1.43
9. [L1] => [L3]	0.08	66.67%	1.43	0.03	1.43
10. [L1] => [L2]	0.08	66.67%	1.43	0.03	1.43
11. [L1] => [L3]	0.08	66.67%	1.43	0.03	1.43
12. [L1] => [L2]	0.08	66.67%	1.43	0.03	1.43
13. [L1] => [L3]	0.08	66.67%	1.43	0.03	1.43
14. [L1] => [L2]	0.08	66.67%	1.43	0.03	1.43
15. [L1] => [L3]	0.08	66.67%	1.43	0.03	1.43
16. [L1] => [L2]	0.08	66.67%	1.43	0.03	1.43
17. [L1] => [L3]	0.08	66.67%	1.43	0.03	1.43
18. [L1] => [L2]	0.08	66.67%	1.43	0.03	1.43
19. [L1] => [L3]	0.08	66.67%	1.43	0.03	1.43
20. [L1] => [L2]	0.08	66.67%	1.43	0.03	1.43
21. [L1] => [L3]	0.08	66.67%	1.43	0.03	1.43
22. [L1] => [L2]	0.08	66.67%	1.43	0.03	1.43
23. [L1] => [L3]	0.08	66.67%	1.43	0.03	1.43
24. [L1] => [L2]	0.08	66.67%	1.43	0.03	1.43
25. [L1] => [L3]	0.08	66.67%	1.43	0.03	1.43
26. [L1] => [L2]	0.08	66.67%	1.43	0.03	1.43
27. [L1] => [L3]	0.08	66.67%	1.43	0.03	1.43
28. [L1] => [L2]	0.08	66.67%	1.43	0.03	1.43
29. [L1] => [L3]	0.08	66.67%	1.43	0.03	1.43
30. [L1] => [L2]	0.08	66.67%	1.43	0.03	1.43
31. [L1] => [L3]	0.08	66.67%	1.43	0.03	1.43
32. [L1] => [L2]	0.08	66.67%	1.43	0.03	1.43
33. [L1] => [L3]	0.08	66.67%	1.43	0.03	1.43
34. [L1] => [L2]	0.08	66.67%	1.43	0.03	1.43
35. [L1] => [L3]	0.08	66.67%	1.43	0.03	1.43
36. [L1] => [L2]	0.08	66.67%	1.43	0.03	1.43
37. [L1] => [L3]	0.08	66.67%	1.43	0.03	1.43
38. [L1] => [L2]	0.08	66.67%	1.43	0.03	1.43
39. [L1] => [L3]	0.08	66.67%	1.43	0.03	1.43
40. [L1] => [L2]	0.08	66.67%	1.43	0.03	1.43
41. [L1] => [L3]	0.08	66.67%	1.43	0.03	1.43
42. [L1] => [L2]	0.08	66.67%	1.43	0.03	1.43
43. [L1] => [L3]	0.08	66.67%	1.43	0.03	1.43
44. [L1] => [L2]	0.08	66.67%	1.43	0.03	1.43
45. [L1] => [L3]	0.08	66.67%	1.43	0.03	1.43
46. [L1] => [L2]	0.08	66.67%	1.43	0.03	1.43
47. [L1] => [L3]	0.08	66.67%	1.43	0.03	1.43
48. [L1] => [L2]	0.08	66.67%	1.43	0.03	1.43
49. [L1] => [L3]	0.08	66.67%	1.43	0.03	1.43
50. [L1] => [L2]	0.08	66.67%	1.43	0.03	1.43
51. [L1] => [L3]	0.08	66.67%	1.43	0.03	1.43
52. [L1] => [L2]	0.08	66.67%	1.43	0.03	1.43
53. [L1] => [L3]	0.08	66.67%	1.43	0.03	1.43
54. [L1] => [L2]	0.08	66.67%	1.43	0.03	1.43
55. [L1] => [L3]	0.08	66.67%	1.43	0.03	1.43
56. [L1] => [L2]	0.08	66.67%	1.43	0.03	1.43
57. [L1] => [L3]	0.08	66.67%	1.43	0.03	1.43
58. [L1] => [L2]	0.08	66.67%	1.43	0.03	1.43
59. [L1] => [L3]	0.08	66.67%	1.43	0.03	1.43
60. [L1] => [L2]	0.08	66.67%	1.43	0.03	1.43
61. [L1] => [L3]	0.08	66.67%	1.43	0.03	1.43
62. [L1] => [L2]	0.08	66.67%	1.43	0.03	1.43
63. [L1] => [L3]	0.08	66.67%	1.43	0.03	1.43
64. [L1] => [L2]	0.08	66.67%	1.43	0.03	1.43
65. [L1] => [L3]	0.08	66.67%	1.43	0.03	1.43
66. [L1] => [L2]	0.08	66.67%	1.43	0.03	1.43
67. [L1] => [L3]	0.08	66.67%	1.43	0.03	1.43
68. [L1] => [L2]	0.08	66.67%	1.43	0.03	1.43
69. [L1] => [L3]	0.08	66.67%	1.43	0.03	1.43
70. [L1] => [L2]	0.08	66.67%	1.43	0.03	1.43
71. [L1] => [L3]	0.08	66.67%	1.43	0.03	1.43
72. [L1] => [L2]	0.08	66.67%	1.43	0.03	1.43
73. [L1] => [L3]	0.08	66.67%	1.43	0.03	1.43
74. [L1] => [L2]	0.08	66.67%	1.43	0.03	1.43
75. [L1] => [L3]	0.08	66.67%	1.43	0.03	1.43
76. [L1] => [L2]	0.08	66.67%	1.43	0.03	1.43
77. [L1] => [L3]	0.08	66.67%	1.43	0.03	1.43
78. [L1] => [L2]	0.08	66.67%	1.43	0.03	1.43
79. [L1] => [L3]	0.08	66.67%	1.43	0.03	1.43
80. [L1] => [L2]	0.08	66.67%	1.43	0.03	1.43
81. [L1] => [L3]	0.08	66.67%	1.43	0.03	1.43
82. [L1] => [L2]	0.08	66.67%	1.43	0.03	1.43
83. [L1] => [L3]	0.08	66.67%	1.43	0.03	1.43
84. [L1] => [L2]	0.08	66.67%	1.43	0.03	1.43
85. [L1] => [L3]	0.08	66.67%	1.43	0.03	1.43
86. [L1] => [L2]	0.08	66.67%	1.43	0.03	1.43
87. [L1] => [L3]	0.08	66.67%	1.43	0.03	1.43
88. [L1] => [L2]	0.08	66.67%	1.43	0.03	1.43
89. [L1] => [L3]	0.08	66.67%	1.43	0.03	1.43
90. [L1] => [L2]	0.08	66.67%	1.43	0.03	1.43
91. [L1] => [L3]	0.08	66.67%	1.43	0.03	1.43
92. [L1] => [L2]	0.08	66.67%	1.43	0.03	1.43
93. [L1] => [L3]	0.08	66.67%	1.43	0.03	1.43
94. [L1] => [L2]	0.08	66.67%	1.43	0.03	1.43
95. [L1] => [L3]	0.08	66.67%	1.43	0.03	1.43
96. [L1] => [L2]	0.08	66.67%	1.43	0.03	1.43
97. [L1] => [L3]	0.08	66.67%	1.43	0.03	1.43
98. [L1] => [L2]	0.08	66.67%	1.43	0.03	1.43
99. [L1] => [L3]	0.08	66.67%	1.43	0.03	1.43
100. [L1] => [L2]	0.08	66.67%	1.43	0.03	1.43

圖一、關聯規則

利用weka分析我們可以將資料剖析，使用關聯規則讓我們更容易使用和說明訊息。

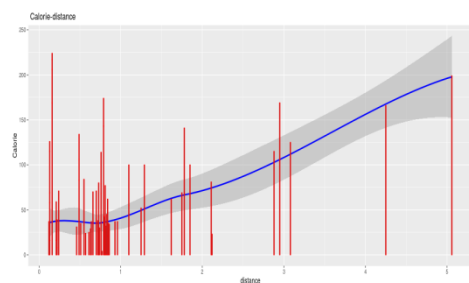


參、R語言

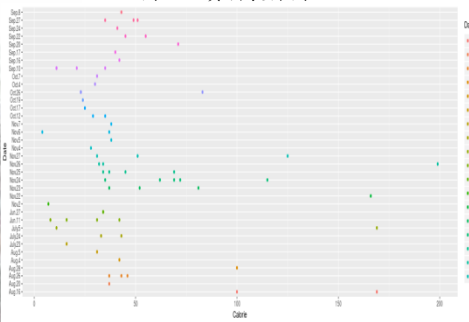
R語言本身是屬於高階的直譯式語言，是一個整合型的資料處理軟體及統計軟體，同時也是繪圖軟體。完全免費，可以在各種平台上運作，包含 Windows、Mac、Linux 等數十種平台。本身支援混合式的程式設計模式，也支援物件導向程式設計與函數式程式設計混合式的程式設計風格會讓一個問題有好幾種解決方式。

肆、專題結果

我們最後用R語言將資料圖表化並寫成網頁，以方便辨識及理解。



圖二、資料長條圖



圖三、資料散佈圖