Supplementary Material

Table I
Details of factor datasets

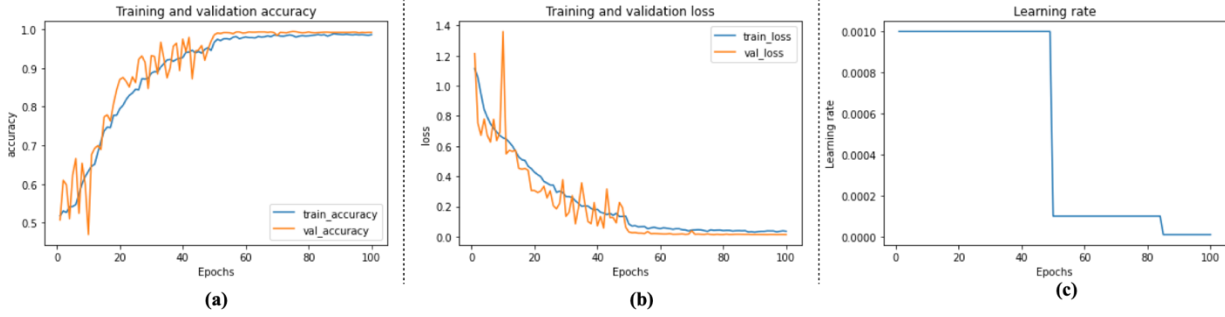| Dataset	No. of segments	No. of training segs.	No. of testing segs.	Percentage of class 0	Percentage of class 1
Age_1	5,695	3,986	1,709	60.40	39.60
Age_2	5,794	4,055	1,739	60.20	39.80
Age_3	5,749	4,024	1,725	59.68	40.32
Age_4	5,674	3,971	1,703	60.26	39.74
Gender_1	5,666	3,966	1,700	73.90	26.10
Gender_2	5,703	3,992	1,711	72.72	27.28
Gender_3	5,730	4,011	1,719	72.79	72.21
Gender_4	5,780	4,046	1,734	72.72	27.28
Male_1	4,230	2,961	1,269	76.05	23.95
Male_2	4,186	2,930	1,256	75.66	24.34
Male_3	4,201	2,940	1,261	75.46	24.54
Male_4	4,257	2,979	1,278	75.88	24.12
Smoke_1	5,946	4,162	1,784	50.61	49.39
Smoke_2	5,941	4,158	1,783	50.48	49.52
Smoke_3	6,013	4,209	1,804	50.27	49.73
Smoke_4	5,935	4,154	1,781	50.13	49.87
Duration of use_1	5,754	4,027	1,727	60.48	39.42
Duration of use_2	5,719	4,003	1,716	59.87	40.13
Duration of use_3	5,724	4,006	1,718	60.74	39.26
Duration of use_4	5,804	4,062	1,742	59.84	40.16

Fig. 1. Learning curves presenting the progress of accuracy (a), loss (b), and learning rate decay (c) during training for 100 epochs of the Age_1 dataset using Approach A.
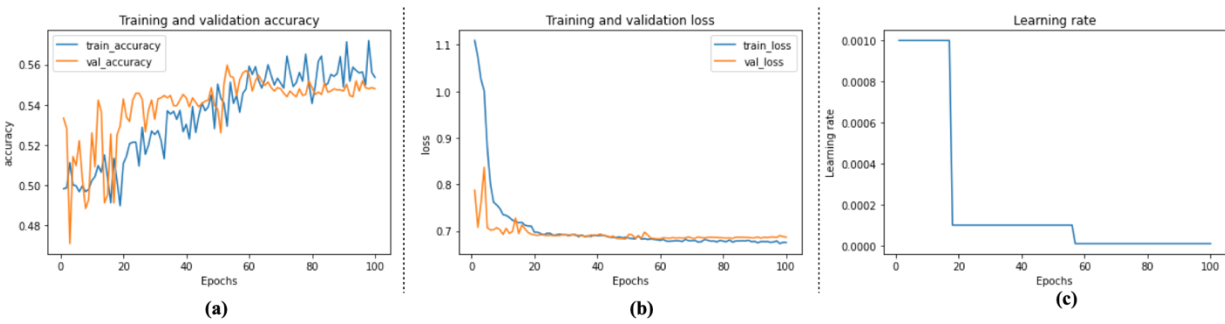

Fig. 2. Learning curves presenting the progress of accuracy (a), loss (b), and learning rate decay (c) during training for 100 epochs of the Smoke_2 dataset using Approach A.