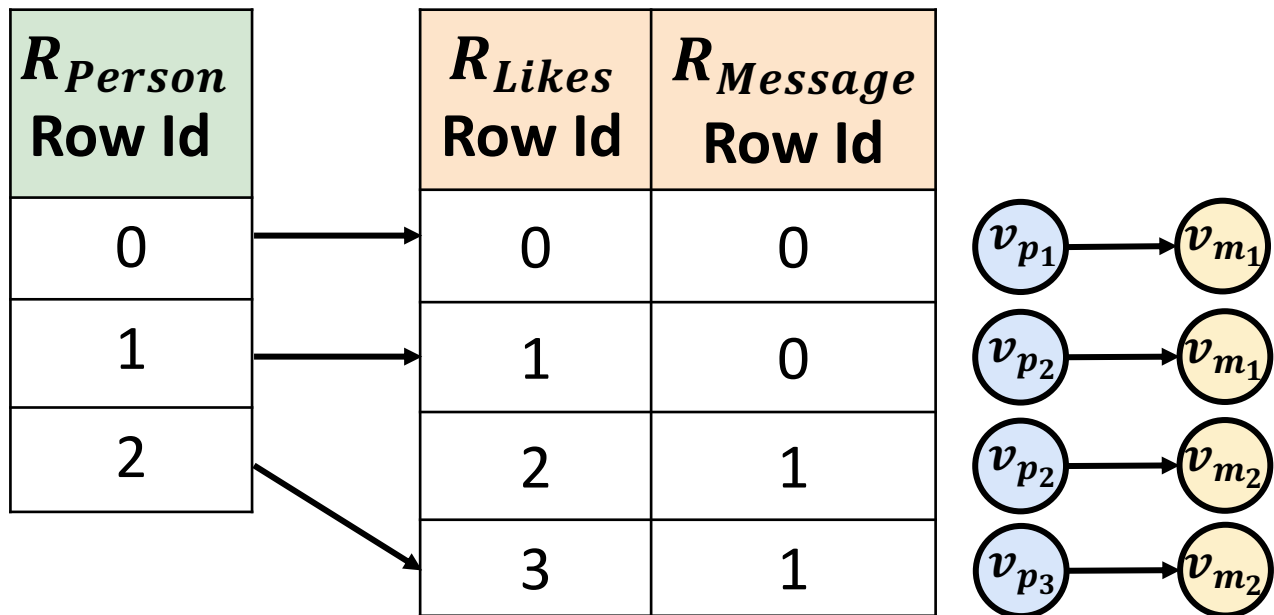


likes_id	pid	mid	date	pid_rowid	mid_rowid
$l_1$	$p_1$	$m_1$	2024-03-31	0	0
$l_2$	$p_2$	$m_1$	2024-03-28	1	0
$l_3$	$p_2$	$m_2$	2024-03-20	1	1
$l_4$	$p_3$	$m_2$	2024-03-21	2	1

(a) Extended  $R_{Likes}$  Table



(b) the VE-Index on  $R_{Person}$  in the CSR Format