Relationship of elements of matrices

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ABSTRACT

$[\mathbf{A}]_{m\times n}$ is a matrix whose elements are a_{ij} . Now if $[\mathbf{B}]_{p\times q}$ is another matrix with elements $b_{i'\ j'}$ then there may be any relation with i and i' ; j and j' . When i' = f(i) and j'= g(j) then for different values of i, j we get different values of i',j' . So if we put all the elements of a matrix **A** in a computer screen or page then the different locations of every element of **A** will take or put into another matrix **B** whose elements will be in a relationship with the previous screen. The more rigid we think the relationship between two computers can happen.

Relationships between two or more computers can be shown through this type of link. Here a matrix **A** can be related to **B**,**C**,**D** matrices or more. Each matrix can be treated as a computer.The more interesting thing is that the elements of a matrix **A** can be related with matrices **B**,**C**,**D** where elements of **B,C,D** are in different places and if we keep certain gaps and choose proper functions then matrix **A** will be the adjusted union matrices of **B**,**C**,**D**.

We can explain about the method that if $a_{ij} = b_{i'j'}$ and i'= i+1, j'= j+1 then a 2×2 matrix **A** has the elements $a_{11},a_{12},a_{21},a_{22}$ will be equal with the elements $b_{22},b_{23},b_{32},b_{33}$ respectively of matrix **B** . Here the matrix **B** is bigger but in previous **A** was taken as bigger. Now here we can get **B** of at least a matrix of order 3×3 and if we give conditions such as $b_{i'j'}=0$, for i'=1or j'=1 then we get other elements of **B** as zero and get a kinew matrix **B** in which the elements of **A** are in different locations. If we adjust another matrix $[\mathbf{C}]_{3\times1}$where elements of **C** are denoted by c_{mn} and m=i',n=j'=1 then we get another relationship between two matrices. By this way we can manipulate or in my point of view adjust one matrix with more matrices. This is one type of linking. I mention that we have to use the integral functions, that is I want to mean we have to use the row number and column number of a matrix expressed as the function of another linked matrix such that the functional value comes in integer. This matrix relationship is done through elements of the matrix but if we think of the elements as some sets then we get another view in which all the elements of the set will be in a relation.

So if we construct our matrix with more matrices by adjusting some relationship between elements then the whole matrix in a computer screen represents an array wise division in which elements must have an identity with its row by column numbers. As per my knowledge we can input data in a matrix screen with another matrix screen , maybe in a computer or other things. We can use this system of making relationships in other types by joining one small screen to a larger screen and I know the computer known person can do their best to write a program to adjust the elements. So the rest of the part I left for the readers and the thinkers. I hope I have clarified my idea in this paper. If not I am always helpful to clear if the reader can contact me in my email address.