

## DYNAMIC GAMES

## Why

Most games are iterative.<sup>1</sup>

## Example: tic-tac-toe

Consider the game "tic-tac-toe" in which there are two players. Denote the players by X and O. The game starts with an empty  $3\times 3$  array, which the players proceed to "fill."

Player O starts and selects a cell in which to "mark her move." From then on, that cell is "occupied," Second, it is player X's turn to pick a cell, any one that is not already occupied. The play proceeds until either all cells are occupied or one of the player has three cells in a row, horizontally, vertically, or diagonally.

<sup>&</sup>lt;sup>1</sup>Future editions will expand.

