Tetrinomicon: a multiplayer Tetris game for the Xbox 360 where players earn special blocks by clearing lines and can use these blocks on themselves or their opponents. Special blocks come in many varieties, but fall into four categories: attack, defense, summon block with special properties, or uber-powered. It can be played with either two local players or one local player and up to three networked players. The below sketches and information are all from the 1 local, 3 networked situation.

Information the user must keep track of: The status of their own field, the status of their opponent’s fields, the special blocks that they have at their disposal, those that they can harvest from their field, those that their opponents can harvest from their fields, who they are targeting, and when special blocks are used. The history of special block usage against the local player is shown as bar graphs on each of the opponents’ fields – that is, as a network player uses a red special block, the red bar on their ‘aggression meter’ grows a bit.

The attached sketch may help clarify the basic view of the game and how information is presented. <Apparently, my scanner has difficulties reading… anything. I will bring a sketch to class>

1) Validity of System Status

Users are informed of nearly all actions within the game as it is played. The status of each field, all line clears, and all special block usage is always visible. The history of special block usage as it relates to the local player is also displayed as bar graphs on the aggressor’s field. Whom the user is targeting is displayed as a persistent, translucent target image hovering over the targeted field. As network players use special blocks, their target and an image of the block used become briefly visible to the local player. The special blocks available to a player are sorted by type and displayed in queues.

All feedback is immediate to the user input. Any time an action does not receive immediate feedback should be considered as an error.

2) Match between system and real world

There is no language used in the in-game interface, and the language in the menus and options is concise and understandable. Many of the concepts shown are new to players familiar with Tetris, but once seen, are readily understood.

3) User control and freedom

Without solid controls, games become difficult and frustrating. Players can select between a few control schemes to use what suits their play style and intuition. Short of a
full crash, users can back out of any area easily, using conventions common to Xbox games.

4) Consistency and standards

All block motions are controlled with the left hand (with the exception of rotation, which is handled on the triggers) and all targeting & attacking is done with the right hand. In menus, A and Start are always taken as “Accept” whereas B is always taken as “Cancel” or “Go Back”

5) Help users recognize, diagnose and recover from errors.

The user is only in the position to fix one possible type of error – network errors. All errors are reported, though little diagnostic or repair work can be done on the user end due to the nature of the Xbox 360 console. Where appropriate, “Reset to Defaults” functionality is provided.

6) Error Prevention

It is not easy to make errors due to the focused nature of the game’s scope. (This does not include strategic or block placement errors due to incorrectly gauging where a block is placed, though subtle vertical guides are provided to speed play)

7) Recognition rather than recall

There are a large number of types of special blocks, each with their own distinct icon. However, due to the limited size of the blocks, limited information can be presented on them. Efforts are made (through magnification and animation, as well as coloring and icons) to distinguish special blocks from normal ones. The icons on blocks do correspond to their function, though how well they correspond is a subject that requires more user testing.

8) Flexibility and efficiency of use

Shortcuts are not really valid in this type of application. Providing shortcuts or other accelerators in-game would provide unfair advantages to experienced users, who are already likely to have an advantage over new players. Additionally, menus are Spartan and not very deep, so accelerators are not needed.

9) Aesthetic and minimalist design?

The design is not exactly minimalist, due to the volume of information that must be presented to the player at all times, but it does not present unnecessary information to players. The color schemes used emphasize the role that special blocks play in the game, and are pleasing to the designer. More user testing is required in this area as well.
10) Help and documentation

Instructions for play are provided. They are limited enough so that search is unnecessary.

Cognitive Walkthrough
From the perspective of a player who wants to jump online and play a quick game; She has seen the game played, and understands the concept, but has never played before.

1) Boot up 360.
2) Select Tetrinomicon from list of available arcade games.
Title Screen (Options: Xbox Live Play, Local Play, Options, Return to Arcade)

3) Use control stick to select Options, hit A to accept choice as indicated by small icon in lower right corner.
Options Screen (Options: Configure Control Scheme, Set Block Frequency, Set Special Block frequency, How To Play, Credits)

4) Use control stick to select Configure Control Scheme, hit A to accept choice as indicated by small icon in lower right corner.
Control Scheme Screen (The current setup is displayed, with a blinking right-arrow)

5) Use control stick to go right. Press left to go back after deciding that the default scheme is better.
Options Screen

6) Press B to go back as indicated by icon in lower corner.
Title Screen

7) Select Xbox Live Play, hit A
Xbox Live Play Screen (Options: Host Game Search for Game)

8) Select Search

Game found, waiting for players (Options: View game options, mark as ready)

9) Mark as ready

Game begins
Player plays until she has a few special blocks in her queues, two red “attack” blocks, and a green “beneficial” block.

Player uses right stick to target opposing player, hits B (red) button twice to use the red special blocks. She then targets herself and hits A (green) button to use the beneficial block on herself.

Player sees a target appear on her own field, sees an attack block within it. She knows she has been attacked, by whom and with what before she even sees the effect on her own playing field.

This continues until the game ends.

Once the game ends, the player is returned to the Title screen, and can continue playing or return to the Arcade.