Collaborative Planning Gameplay from Disaster Response Practice


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Disaster response training ethnography

Years of observation of training for fire emergency responders, urban search and rescue operatives, and incident command teams provides insight into disaster response practice.

Disasters require iterative planning by multiple people with their own roles, perspectives, and expertise to coordinate resources and enact response. Planning involves developing actionable intelligence from gathered information, objectives that emerge over time from intelligence, and intense collaboration.

We examine games with planning mechanics as exemplar case studies to understand the state-of-the-art in planning game mechanics.

These games include play around the spatio-temporal specification of action, generally carried out by a single player. In Due Process, plans may be accessed in real time during action gameplay. In Breach & Clear, Transistor, and Rainbow Six, programmed actions are carried out automatically.

We observe a need for better planning gameplay.

Game design implications

1. Shared workspaces
   - Collaborating players need to be able to form plans that span space and time.
   - Players should make use of information and develop intelligence.

2. Executing plans
   - Plans must be executable by players or simulated agents.
   - Players need access to plans to use them to inform action.
   - Simulated agents need limited programming.

3. Emergent goals
   - Goals are not always well-formed.
   - Developed intelligence should drive goals.
   - Contingencies must be discoverable and recoverable.

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