The Social Life of Uncle Roy: Executive Summary

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Abstract

This report summarizes the main findings to emerge from ethnographic study of Uncle Roy All Around You – a mixed reality game "that pitches online players around the world alongside players on the streets of a real city." The report shows that in addition to being understood from the point of view of interactive art and technological perspectives, the 'game' is also a site collaborative *work* between players, behind-the-scenes staff, and occasionally, even members of the public.

While not carried out for purposes of paid labour, the game is a product of collaborative work and exhibits in its production distinct *social organizational properties* that are characteristic of work. Specifically, the game consists of a <u>working division of labour</u> and discrete <u>processes</u> articulated by particular assemblages of <u>work-practices</u> for accomplishing particular activities or <u>'jobs' of work</u>. This report provides a summary account of the division of labour and the processes, practices, and activities implicated in the collaborative production of Uncle Roy All Around You.

The summary draws particular attention to two features of relevance to design: firstly, the importance of an 'ecology of awareness' to the game's behind-the-scenes production, and secondly, interactional 'troubles' that cause collaboration between online and street players to breakdown. These two issues instance a perennial problem in design, namely, what to automate and what to leave to human skill and judgement. On the on hand, there is clear scope to develop further support for player interaction and collaboration. On the other, making technological interventions behind-the-scenes may disrupt the ecology of awareness that the game relies upon.

Process: Player Induction

Before street players can take part in the game they must first be issued with the technology and instructed in gameplay. Player induction accomplishes this work and orients new players to gameplay.

Division of Labour

Player induction involves behind-the-scenes staff located at the booking office, front of house, in Uncle Roy's office, and in the control room.

Jobs and Work-Practices

Inducting new players into the game consists in the accomplishment of a discrete ensemble of collaborative activities which articulate the process. Those activities include,

1. Bringing new players into the game
2. Registering players
3. Introducing players to the game
4. Introducing players to the technology
5. Showing players how to get help
6. Orienting players to actual gameplay
7. Releasing players onto the street

Each of these activities involves distinct arrangements of collaboration and assemblages of work-practices providing for their coordination and accomplishment. Respectively these include,

1. Distributing awareness of new players coming into the game across booking staff, front of house, and the office via walkie-talkie to coordinate the movement of players to the next stage of the game (from booking to induction) and to make the office aware that information of relevance to tracking players will shortly be available.

2. Ensuring that players return expensive devices (by securing their possessions in numbered boxes), constructing an online identity and player descriptions (through the use of information gathered on paper, through digital photography, and physical proximity); and dissociating players from everyday expectations through the use of a 'formal' and dramaturgical conversational structure of action.

3. Exploiting the formal and dramaturgical conversational structure to issue an economical set of instructions to players elaborating what the game is all about.

4. Marrying the formal conversational structure with vernacular methods of instruction by 'telling and showing' and 'showing and doing' to convey how the technology works.

5. Exploiting the vernacular method of 'showing and doing' to instruct players how to get help.

6. Exploiting the formal conversational structure to orient players to actual gameplay by issuing an explicit instruction detailing specific events to first be attended to and engaged with on the streets.

7. Releasing players by first checking that the technology is working on the streets and then physically orienting players to the 'right direction' through bodily gesture.

These activities, arrangements and practices are intricately woven together and in the production of one and transition to another articulate the process of 'inducting new players into the game'. They exploit walkie-talkie communication, face-to-face conversational structures, vernacular methods of instruction, and gestural conduct in addition to paper-based and online information to orchestrate and coordinate interaction between players and staff.

Process: Navigating Streets and Finding Red Spot
The first activity players must engage is to find their red spot, which requires them to exploit the technology to navigate the streets and find it.

Division of Labour
Navigating the streets and finding the red spot is carried out by street players and supported when occasion demands by behind-the-scenes staff, particularly street performers and control (see following section on 'monitoring players' for details of collaboration).

Jobs and Work-Practices
The process of navigating the streets and finding the red spot is articulated by several distinct collaborative activities including,

1. Taking a bearing
2. Following the clue
3. Keeping on track

While carried out by street players, these activities are collaborative in the sense that they are responses to actions initiated by other parties (Uncle Roy's agents). Their achievement consists in the exercise of social skills that are essentially related to map reading and following instructions. Respectively these include the following.

1. In order to find their way to the red spot players must locate references points on the map and align the map with those reference points in the real world to make it *correspond* with the real city streets. This allows players to project a direction to the red spot. Just how a player is oriented to the streets in the first instance is critical to embedding the technology successfully – i.e., to establishing relevant coordinates.

2. Navigating the streets requires that players read clues furnished by Uncle Roy praxiologically as instructions that furnish directions. Players must contend with the essential incompleteness of instructions, however, which makes the meaning of instructions ambiguous on occasion. In situations where ambiguities exist, players 'trawl the streets' to resolve them. Trawling consists of walking the streets to develop knowledge of those streets (of their names and relations to one another in the real world and on the map) and enables players to identify and eliminate possibilities.

3. Locating the red spot requires players to align the real with the virtual by consulting the map and the surrounding topography in order to establish a correlation between the two. Establishing this correlation enables players to track down and locate the red spot. The achievement exploits local knowledge of the gameplay environment, which is often developed *in situ* by trawling the streets. The clue itself is also a primary resource in this accomplishment, being used to interpret topographical features and identify sought after locations.

These skills are drawn upon throughout the game as player's progress from one clue to another. As one location is found and another clue provided, players orient themselves to the street again by embedding the technology. They follow the clue by reading it praxiologically and address ambiguities time and again by trawling. They track sought after locations down through establishing a correlation between the real and the virtual, developing local knowledge to do so, and exploiting the clue itself to interpret their surroundings and identify candidate locations.

Process: Monitoring Players
Navigating the streets is subject to contingencies – players may take a wrong bearing, for example, and in other ways go off track. Street performers located on the streets help to handle these contingencies by monitoring player's actions.

Division of Labour
Monitoring players involves collaboration between street players, street performers, control, front of house, and the office.

Jobs and Work-Practices
Monitoring player activities is central to the production of Uncle Roy – the game relies on it, indeed monitoring is indispensable as it enables behind-the-scenes staff to handle contingencies effecting gameplay. Monitoring the activities of players consists of the following collaborative activities:

• Recognizing players on the street
• Recognizing 'confused' players
• Intervening
• Maintaining awareness

Recognizing players on the street
Handling contingencies on the streets is provided for by the distribution of a number of 'street performers' around the game play area, often at particular vantage points, and trades on the ability to recognize players. Recognition is accomplished through *instructed looking*, where front of house broadcast that new players are entering the game and performers start *scanning the streets* for players.

Performers may *recognize player's at-a-glance* in seeing people doing such actions as carrying a PDA and a stylus, interacting with the PDA via stylus, talking into the PDA, and/or consulting the PDA and their surroundings, visibly navigating the streets around them. Recognizing a player is not always a straightforward matter, however, as the streets are heavily populated and many people carry small mobile devices. In such situations, recognizing a player may also occasion collaboration between the street performer, and/or control, and/or front of house, and/or the office and exploits *online player descriptions* assembled during induction *to confirm or reject a player identity*.

There are occasions when performers fail to recognize players. This does not go unnoticed, however. Performers have a sense of how long it should take a player to come into their zone and failure to comply with this *expectation* triggers an unfolding sequence of work exploiting various arrangements of collaboration that transforms the player into a *lost object to be found*.

Failure to recognize a player leads the performer to *notify* other staff of the situation. Performers then move beyond scanning the street from a particular vantage point to *tracing the player's path* through the game space. Failing this, *potential pathways* the player might have taken are taken into account and the performers concert their actions via walkie-talkie to execute the search. Those nearest to potential paths usually carry out the search, not that this necessarily results in the player being found. Having traced potential pathway(s) without success, more performers may be recruited to the search. The performers coordinate the search through the use of *grid references* that demarcate discrete locations in the gameplay area. If tracing a path or potential path fails to locate a player, performers must resort to trawling the streets to find someone who might be and indeed is a recognizable 'player'. Then, of course, as a last resort there is always sheer serendipity.

The search for lost players exploits online descriptions and gameplay status reports, including connectivity, last 'known' location (though self-reporting may be erroneous), and clues being followed. If a performer fails to recognize a player these 'digital traces' provide for *virtual recognition* of the player and inform judgements as to whether or not remedial action needs to be taken.

Recognizing 'confused' players
Monitoring player activities also relies on recognizing when players are 'confused' - i.e., seeing that while doing visibly recognizable gameplay actions the player is also, and at the same time, doing actions that suggest to street performers they are encountering some kind of trouble. Performers attend to *outward signs of confusion*, particularly *changing bodily orientations* (where players move from left to right, back to front, etc.) and *constant consulting of the PDA* that accompanies these orientations.

Outward signs of confusion frequently occur but they do not mean that a player is necessarily encountering an *obdurate* trouble that is likely to effect the continued playing of the game. Outward signs of confusion also accompany *transient* troubles, particularly trawling the streets to establish a sense of the local topography and work out which direction to proceed in. Recognizing confusion is not a straightforward matter then of seeing outward signs of confusion – the status of these signs or behavioural displays stands in need of confirmation. The *transient* or *obdurate* state of confusion only becomes apparent to street performers *after* watching an unfolding series of actions on the street and it is with this knowledge in mind that street performers exploit a method of *shadowing* players to establish the state of confusion being encountered.

Shadowing a player is a *covert* activity that relies on a performer's *knowledge of the game and the gameplay area*. While players may, in principle take many different paths through the gameplay area, in practice they tend to stick to the main streets and thoroughfares. Consequently, over the unfolding course of gameplay, performers come to recognize *well-trodden paths* and exploit these to recognize both confused states and their repair. Essentially, it is a matter of players not only looking like they are not confused but also of being in the right place at the right time and any deviation from such expectancies warrants investigation.

Shadowing a player often involves collaborating with control. The primary purpose of this collaboration is to find out if the player is *experiencing any obvious technical difficulties*, such as a disconnection from the game. Collaboration relies on establishing the identity of the player, which is done through providing a description of the player's recognizable features (gender, clothing, hair colour), and by *matching* that description with the online description produced by front of house. In the absence of obvious technical difficulties the state of confusion is identified as *interpretive* in character: the player has taken an incorrect bearing, aligned the map wrongly, misinterpreted the clue, is trawling the streets to develop enough knowledge to make sense of the clue's instructions, or is quite simply and utterly lost.

Collaboration with others in the division of labour allows performers to rule in or out technical sources of confusion, then, and to *elaborate candidate sources* of confusion.

Intervening
Recognizing confusion not only warrants investigation but also *intervention*, which prevents terminal breakdown. There are *three main categories of intervention*: 'getting players back on track' as and when they encounter interpretive troubles, 'handling technical troubles', and 'managing the contravention of gameplay rules' (where, for example, two players play together and efforts are made to stop them, not always successfully). While any of these interventions may be made at any point in the game, two of them are *critical*: getting players back on track, which is essentially a matter of recognition work and consists of the recognition practices described above and subsequently intervening to give directions - this is *the most common form of intervention*; and handling technological troubles.

Handling technical troubles is highly collaborative activity. It may involve all behind-the-scenes staff – performers, control, front of house and the office – as well as players. Intervention is here concerned to *establish the nature of the technical trouble* (is it a disconnection, which can easily be seen by control, or some other less visible problem, such as the audio not working?) and, if the player is not already being shadowed, work is concerned to *locate the player*, which entails furnishing spatial coordinates based on digital traces and scanning the streets (digital traces at best only furnish an area where the player is located and not his or her exact position).

If the player is not already being shadowed, collaboration is also concerned to *coordinate assistance*. This involves *identifying* a performer who can get to the player. The *relative relationship* between performers and players locations, along with performers current activities, underpins negotiation and decision-making as to just which performer will assist the player. Collaboration here also involves *articulating* the nature of the technical problem to performers and a course of action that may result in its resolution (typically and simply resetting the PDA). A description of the player is also required in situations where the player is not being monitored so that he or she may be recognized. Establishing that the problem has been solved is also a matter of collaboration, where performers *notify control* that a repair has been made and ask control to *confirm the efficacy of the repair*, which is established by consulting the technology in the control room.

Interventions also extend to *managing the interactions between online and street players*. Online players need street players to find a postcard located somewhere on the city streets if their involvement in the game is to develop and the situation frequently arises where multiple players seeking multiple cards attempt to get a player to find them. This results in street players being diverted by online players and control monitors player interactions, by viewing the messages sent to street players, in order to *keep street players on track* and interventions here consist of the sending of a message providing relevant instructions to street players who find themselves in this situation. Control also monitors the content of online messages for inappropriate conduct. Intervention is here concerned with *maintaining the moral fabric of the game* and in situations where inappropriate language is used, online players are first given a warning and, if their behaviour continues, then disconnected from the game.

Maintaining awareness
Intervention relies on awareness of player activities online and on the streets. Awareness is produced and maintained through the continuous monitoring of players – through recognition practices and managing player interactions online – and the *continuous stream of status reports and responses from multiple locations* where behind-the-scenes staff are situated. Through this continuous stream of reports and responses awareness is *constructed and distributed moment-by-moment*. It emerges not from any single source but from people situated at various locations, and with different resources to hand, where monitoring goes on.

Thus, the game's production relies on an *ecology of awareness* that enables behind-the-scenes staff to build and update a shared sense of the *flow of gameplay activities* and determine 'what is going on now' and 'what needs to be done next'. Distributed awareness in turn permits *distributed coordination* and the collaborative allocation of staff to undertake the activities that ensure the continued flow of gameplay. Future design work needs to take the production and maintenance of awareness into account to ensure that solutions do not disrupt the ecology of awareness on which gameplay relies.

Process: Finding Postcard
Street players have to find a postcard for online players if they are to get to Uncle Roy's office. The players have to collaborate to find the postcard then.

Division of Labour
Finding a postcard involves street players, online players, control, street performers, and members of the public.

Jobs and Work-Practices
Finding a postcard relies on 'following clues'. This is a practical achievement that exploits various arrangements of collaboration between street players, online players, behind-the-scenes staff, and members of the public. Work here is concerned with the following 'jobs'.

- Street players need to establish the spatial relevance of clues in order to determine the direction to go in from 'here' –i.e., from the place where they have received their next clue.
- Contingently, as occasion demands, street players need to account for gameplay actions to members of the public.
- Street players exploit the public's local knowledge of the gameplay area to get directions and identify locations and thus find their way to destinations of relevance specified by clues.
- Street players establish mutually intelligible points of reference with online players in order to formulate directions to locations where postcards are situated.
- Street players negotiate directions and destinations with online players in order to find locations where postcards are situated.
- Street players and online players collaborate to make sense of the postcard's instructions.
- Control intervenes when street players are being led astray by online players in order to keep them on track and get them to the next stage of the game.

The work of establishing mutually intelligible points of reference and of negotiating directions and destinations is subject to the contingencies of gameplay - of street players being unable to make sense of vague descriptions offered by online players, or being unable to identify destinations, or of receiving new clues from Uncle Roy, and following them. Collaboration between players is, as a consequence of these contingencies, sporadic, fitful, or *hit-and-miss* and frequently breaks down.

Process: Making Way to Office
Having found a postcard, street players must make their way to Uncle Roy's office. This is a matter of collaboration between street players and online players, where the latter 'guide' the former to the office.

Division of Labour
Finding a postcard involves collaboration between street players and online players and the accomplishment of predefined gameplay procedure.

Jobs and Work-Practices
Making way to the office requires collaboration between street players and online players. Work here is concerned with the following 'jobs'.

- Notifying online players of the street player's current situation and updating location.

- Exploiting reported location and views on the virtual environment to furnish directions to street players.
- Accomplishing predefined gameplay procedure to locate the office within a building.

Guiding a street player to the office is subject to the contingencies of communication. When street players fail to respond to online players queries, collaboration breaks down leaving online players confused if not bewildered and struggling to make sense of what is happening on the ground. Essentially, the practical concern here is one to do with awareness: of online players being aware of street players locations (which they work to establish in order to furnish directions) and of awareness of street players connectivity status when communication breaks down. The potential exists here to augment awareness in various ways to support direction-giving and provide various representations of street player status (including connectivity along with movement and clue status).

Process: Accomplishing Pick-up Procedure
Having reached the office, the final stage of the game consists of being picked-up in a limousine and driven back to the venue where the game was started.

Division of Labour
Accomplishing the pick-up procedure involves collaboration between street players, limo staff, office staff, and trades on behind-the-scenes work carried in collaboration with others in the division of labour.

Jobs and Work-Practices
Accomplishing the pick-up procedure involves discrete jobs of work and arrangements of collaboration carried out by behind-the-scenes staff and street players. These include:

- *Tracking players*, where office staff monitor talk between performers and control, and otherwise collaborate directly with them, to establish who is in the game and approaching the office.
- *Recognizing that players have reached the office*, where staff exploit the ecology of awareness involved in tracking players to recognize persons as players and otherwise assist players into the office as contingencies dictate.
- *Recognizing that the pick-up procedure has been accomplished*, where office staff look to see if players have filled in their postcards as per instruction and otherwise collaborate with limo staff to resolve recognition troubles.
- *Coordinating pick-up*, where office staff and limo staff collaborate to establish that the limo is ready to drive and limo staff collaborate with

players to arrange their pick-up following notification from office staff that the pick up procedure has been accomplished.

It is through the collaborative accomplishment of the activities work outlined above that Uncle Roy All Around comes to life and us played time and again by different cohorts. The primacy of the ecology of awareness and breakdowns in interaction between online and street players are key issues to be considered in reflecting upon the continued development of the game.