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[Turner, Jane](#)

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Rolling Stories: Table-top RPGs for engaging students in science.
[Exhibition/Event]

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<http://rolling-stories.making-games.net/engaging-science/>

Rolling Stories (narrating worlds /dissolving boundaries)

Website: <http://rolling-stories.making-games.net/engaging-science/>

Rolling Stories is a research project that scaffolds the Advance Queensland Engaging Science (AQES) performance indicators of “Connection, knowledge and empowerment” by engaging STEM practitioners, tertiary students and school students in collaborative ‘pen and paper’ game world design and table-top role play opportunity. The Rolling Stories project will foster the sharing of stories of self (stories of identity) and stories of meaning through engagement techniques inspired by Table-top Role Playing Games (TRPGs). The project expects both intangible outcomes in terms of the AQES goals of “Connection, knowledge and empowerment” and tangible outcomes in the form of TRPG game books which can then be shared and re-used in educational and professional contexts.

This draft prepared for DSITI Advance Queensland Engaging Science Grants (round 3)

Introduction

The importance of story telling in the construction of identity and culture is well established in the arts and humanities. From early literacy activities in educational contexts to potential activism and mobilization in communities (Beeson & Miskelly, 2005), the ability to tell one’s own ‘story’ as an empowered agent is enshrined in UNESCO resolutions (UNESCO, 2003), given methodological power in ethnographical research (Geertz, 1973) and valued as both data and catharsis in psychological research (Bruner, 2004). For the philosopher Ricoeur (1984) story telling or narrating is the essence of human being in the world. Story telling is about understanding connection, embodying knowledge and, ultimately, empowerment for both the story teller and the story recipients.

In contemporary STEM areas, stories and story telling are either constrained by epistemological expectations of objectivity or relegated to the historical and documentary aspects of the disciplines. Their value as communication of being in the world is typically abducted as participant data, ethnographic research and user feedback in the service of STEM goals.

Role play and the enactment of roles as a means of simulating experience in complex situations is a well established educational method. It is used in the teaching of professionals and in the classroom to facilitate the understanding of literature, history and science (Blatner, 2009). There is also much interest in contemporary ‘role play’ in the area of digital simulations of experience. Use of high-end technologies, and VR technologies in particular, propose opportunity for both training and empathy. However, such immersive worlds are dependent on technologies and the skill sets of teams of programmers and modellers who construct worlds on behalf of the original story tellers (Turner & Bidwell, 2007) and, as Star (1991) has observed, to tell someone’s story on their behalf is to silence them. Before exquisitely constructed digital story worlds and simulations there were Table-top Role Playing Games (TRPGs), storied worlds which could be constructed by players themselves using pen and paper and explored through narration in close camaraderie.

Background: The need for story telling

Scientists can tell their stories using media channels such as television, radio, print, digital or social media.

There are numerous avenues for scientists to get stories into the media; however, scientists need to become better at communicating their research in plain English. Media which are supportive of science stories or programs should be targeted and scientists should become more active at pitching stories.

Engaging media could involve a training session followed by a pitching competition for scientists. (Queensland Government, 2016, p. 26)

The Queensland Government recognizes that understanding STEM and promoting STEM is critical to the future of the state. A critical aspect of the QLD Government program is “**connection, knowledge and empowerment**” (QLD Government, 2016, p. 6, emphasis added).

The need for this ‘connection, knowledge and empowerment’ is also visible within research areas where trans, inter and cross disciplinary research projects are considered vital in endeavours which seek pathways through ‘wicked problems’ but where many of the projects remain transitory comings together rather than solid alliances and long lasting marriages; long term projects depend on long term, sustainable, communication of meaning and understanding of the other’s ‘story world’.

Echoing the QLD Government call for STEM practitioners to become more available to ‘lay’ people, Saffran (2017) insists that ‘science’ must become more subjective and empowered to explain itself through story telling which acknowledges its membership of humanity and culture. Saffron writes, “As trust in experts declines, authenticity and personal connection matter more.”

The proposed *Rolling Stories* project is an initiative that seeks to exploit the affordances of the table-top role playing game as an enabler of communication and connection. Use of role play itself is not new in educational contexts (Duveen and Solomon, 1994; Kodotchigova, 2002) and has been used in the STEM context (Byers, 1979), however the *Rolling Stories* project proposal intends to deepen the opportunities of role play by inviting participants to become ‘story world’ designers as well as players.

Background: The power of story telling worlds played with character sheet and dice

The classic TRPG is Gygax and Arneson’s *Dungeons & Dragons* (TSR, 1974). The original game was derived from table-top war gaming and introduced the fantasy element which is often assumed to comprise the form although more recent examples of TRPGs are exploring historical and domestic situations with more confidence. Table-top Role Playing Games (TRPGs), sometimes called ‘pen and paper role playing games’, are games in which participants take on a character and a role and describe their

character's actions in response to game events through speech. These games are played face to face in sessions which can range from a few hours to sessions which might take place over many weeks. A TRPG begins with a game world (typically presented in written form as a game story world book), lists of the kinds of characters that might be active in that world and a rule system that scaffolds the player's activities within the game world. Participants describe the actions of their game characters based on their individualised character sheet and the outcomes of their decisions are randomized through throwing dice and calculated according to the formal rules of the game. Player trajectory through the game story world is typically collaborative and a 'Game Master' (GM) will usually offer a quest of some sort that requires a collaborative team. The GM also plots a map for the players and takes on the roles of any Non Player Characters (NPCs) that the players might meet in the course of their actions. The traditional *Dungeons & Dragons* style TRPG depends on the GM to hold the game world story information and plan confrontations and quests but contemporary TRPG systems are often far more narrative driven and can be run without a GM. The current project proposal is inspired by these contemporary, narrative driven TRPGs.

For someone who has never played or seen a TRPG in action, it is best imagined as a kind of unscripted radio drama where each individual actor can make his or her own decisions within the constraints of the story world. The essential form of the game actually has more in common with improvisational drama (Johnstone, 1981) and Boal's forum theatre (1995). In a TRPG, a world is designed for players who then explore the parameters of the world, usually together, through narration. A group of players might be exploring an environmental crisis in different roles (ecologist, artist, designer). They might be faced with a decision during an encounter. Dice are thrown to create outcomes. The most important aspect of the TRPG for this proposal is that the world itself is created by the players as they traverse it and in so doing the players tell their own stories, making connections with other players and exploring meaning in an empowering way.

The enduring popularity of the TRPG is evidenced by the fact that the original *Dungeons & Dragons* franchise is now in its 5th edition (TSR, 2014) and there are now numerous titles that offer TRPG game world books and rule systems for story worlds which range from dystopian futuristic settings to the mundane domestic dinner party. While many players purchase already designed story worlds for their TRPG sessions, players will frequently either modify a game world for their own purposes and specific play sessions or design their own entirely new game worlds and rule sets. Some of these are play tested and polished and offered up for sale through online portals such as DrivethruRPG, others remain as the focus for communities of play. The ease with which a TRPG story world book can be created is enticing and a second important aspect of the current proposal: players can, not only create their own stories within the TRPG form, they can create their own meaningful story worlds for others to explore.

These two aspects of the TRPG form frame the *Rolling Stories* project concept: players are empowered by the form to tell their own stories and players can become story world makers and create worlds for others. The current proposal is inspired by, and contributes to, contemporary research (Bowman, 2007) into use of TRPGs as opportunities for meaningful story telling and agency within a community group. For example Hawkes-Robinson's (2016) work on use of RPGs as therapeutic activity for

young people and Raffael Boccamazzo's work on the use of TRPGs and autism. Such research builds on educational research which investigates potentials for using role-play for cultural competence (e.g. Kodotchigova, 2002) and drama and 'impro' for critical thinking (O'Toole & Dunn, 2002). In contrast to popular conceptions about TRPGs, this research highlights the potential of the form for social cohesion, identity confidence, creativity and communication or "connection, knowledge and empowerment".

Aims and Objectives

The goal of this research project is to leverage the potential of TRPG objects and rule systems in order to facilitate not only the sharing of meaning and experience through stories but to actually provide opportunity for 'embodied' experience of participant 'storied worlds'. The aim is to dissolve disciplinary boundaries and scaffold meaningful communication between STEM and the creative arts, STEM practitioners and the wider public, and indeed, between different disciplines within STEM; in essence, a "walk a mile in my shoes" opportunity through collaborative design and meaningful play.



Tertiary students designing game story worlds

The proposal: Rolling Stories

We seek funding in order to refine the design of workshop materials (a simplified world building system and a simplified TRPG rule system). These materials will then be utilized in a cycle of workshops involving STEM practitioners, tertiary students and school students. The cycle of workshops will generate outcomes in the form of the overall goals of connection, knowledge and empowerment. They will also generate documentation material, research reports for future activities and a draft STEM oriented TRPG story world which can then be made available to educational institutions.

Project participants

Prior to running the actual workshop cycle, the *Rolling Stories* researchers will work with game design professionals in order to refine and test current TRPG toolkits.

In order to achieve its goals the *Rolling Stories* project will engage participants from STEM and Art / Design areas as world creators and players in a cycle of workshops. Three tiers of participation are envisioned, collaborating together in three phases.

Phase 1 involves a workshop event which invites STEM professionals to engage in world design and character creation using a system provided by the research team. The workshop participants then play test their worlds with tertiary students (and other professionals). In phase 2 the play testers from phase 1 become the world designers, expanding the story world and character sheets. This time, the play testers will be school students. In phase 3, the school students are given responsibility and asked to enhance and add to the original story world and world parameters. The school students are then invited to play test their versions with the original STEM professionals who set the cycle in motion. The cycle can be expanded or contracted dependent on funding and resource constraints.

Workshop Overview

The workshop cycle is based on an exchange / experience model developed for the 2014 Cube Jam series¹ funded by QUT Engagement Innovation Grants. This model is based in a notion of transfer and process. Documentation will take the form of videography.

The *Rolling Stories* workshops use a simplified version of a story world building tools designed by Ben Robbins in his work *Microscope*, and a simplified play system based on Fred Hicks' *Fate Accelerated*. These resources are used to create complex TRPGs but we have been developing simpler versions for our own use in design classes and will be refining them for the purposes of the workshops. World building workshops will need an introduction (1 hour) followed by a design session (2 hours). Play testing workshops will need an introduction (30 minutes – 1 hour) followed by a play session (2 hours) and a debrief (30 minutes).

Workshop sample run sheet

9.30am: Introduction and guidelines
10.30am – 11.00am: Break
11.00am – 1.00pm: Creating a story world
1.00pm – 2.00pm: Lunch
2.00pm – 2.30pm: Play test introduction
2.30pm – 4.30pm: Play testing session
4.30pm – 5.00pm: Debrief

For the purposes of data collection, ethical clearance will be necessary. The current project will focus on the professional practitioners and ethical clearance for interviews and reflections will be Adult / Low Risk. It is not envisioned that ethical clearance is necessary to run the workshops with school students although an image release form will be used for the video documentation.

Outcomes: connection, knowledge and empowerment

The AQES document announces that “scientists need to become better at communicating their research” and that “Media which are supportive of science stories should be targeted” (Queensland Government, 2016, p. 26). The *Rolling Stories* project

¹ See <http://www.thecube.qut.edu.au/whats-on/2014/cubejam.php>

turns this call into a design activity where in scientists and STEM practitioners are encouraged to both tell their stories and communicate their ways of being and meaning making.

Scientists can tell their stories using media channels such as television, radio, print, digital or social media.

There are numerous avenues for scientists to get stories into the media; however, scientists need to become better at communicating their research in plain English. Media which are supportive of science stories or programs should be targeted and scientists should become more active at pitching stories.

Connection: Designing and creating a world for performance and play is designed as a cooperative activity in its own right. Narrating experiences within the world will enable strong connection opportunities between players. In order to communicate their world, STEM professionals will become game world designers who will have to work together

Knowledge: Knowledge is only made powerful through meaning. Recent projects involving TRPG as a story telling mechanism evidence a depth of meaningful connection to the knowledge area.

Empowerment: Understanding knowledge as meaning is powerful, established as a basic tenet in critical thinking (Luke and Freebody, 1997) and considered a core skill in educational process.

Tangible outcomes

- Networking and connection between Queensland scientists and educational cohorts
- Practice in communication of meaning (story telling) for STEM participants
- Experience in the meaning worlds of other STEM disciplines
- Re-usable materials and resources for further workshops and potential use in wider educational sector (e.g. materials for curriculum use in schools).
- Fore-fronting STEM story telling in a publicly accessible way.

Future research / significance

As well as addressing the Queensland Government list of priorities in STEM directly the *Rolling Stories* research will be of interest to project curators working in the Arts – Science – Technical space as the resources will be adaptable to team creation and cross-disciplinary dialogue. The resources will also be of interest to the educational sector and could be reframed for different age groups and specific curriculum goals providing a rich vein of educational research opportunity.

The project research and results are also positioned within a recent revival of interest in board games and analogue games.

Publications

Turner, Jane (2017) [Table top role playing games as Forum Theatre](#). In *Digital Games Research Association (DiGRA) 2017: Boardgame Studies*, 3-6 July, 2017, Swinburne University of Technology, RMIT University and The University of Melbourne, Melbourne, Victoria.

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