GAMES AND THE FUTURE OF TOWN PLANS

Town Plans could be transformed into MMORPP's : Massive Multi-user Online Role-Playing Plans!

An MMORPG is a Massive Multiplayer Online Role Playing Game, which is now a common format of game play on the internet – via, especially, the PC, but also the Play Station and Xbox. The power of games engines, the physics and interactivity, is now being used in the town planning arena. This article predicts, and proposed, that influence will become ever greater, and Town Plans themselves will eventually be delivered and consumed as a 'serious game'.

The MMORPG acronym can be explained as follows:

- **M**assive: means it is big in virtual geography and virtual capacity. There are a lot of people engaged in the sizable game world simultaneously and across time.
- **M**ultiplayer: there are multiple, many thousands, of 'players' or users from many countries and continents immersed in the same world, competing and co-operating to fulfil quests, make money, acquire power and tricks - and all the normal things of life.
- **O**nline: the technology uses the Internet to interconnect players. When you see another creature or being in the MMORPG, it is generally another actual human sitting behind that virtual being, steering and directing it. The spatial world, the societal rules and the physics, and a few really bad monsters, are made by the programmers, and then real people inhabit the scene.
- **R**ole **P**laying: means you can be whoever you want and gather all sorts of skills and powers about you. You can be elf, dwarf, dragon or faery etc. Each creature will have its unique skill set and this will be chosen in light of the given missions.
- **G**ame because it has missions, quests, and it is fun, or at least adventurous and experiential.

Does this sound like the world of town planning? Probably not – but watch this space. Using some imagination, the MMORPG nicely translates into an MMORPP – the Online Role-Playing (Town) Plan:

> Town Plans are **M**assive because they relate to a lot of people, typically a large and/or complex geographical area, and a lot of issues. They are **M**ulti-player because one Town Plan can influence the future for a million people, and a significant portion of this will interact with the plan, directly or indirectly, over time. Town Plans are becoming **O**nline, but at present this is usually as an Acrobat Reader document, or at best a data-based version viewed in a web browser. The future, however, looks much brighter. The physics and realism of the game engine can be translated to the town plan for a fully immersive, cinematic experience of every part of the plan area, inside and outside buildings. The plan, in this case, could be **R**ole-**P**laying because you could be the mayor, as in Sim-City, the policeman, the planner, the resident, the pedestrian, the motorist, or, of course, the gangster, as in Grand Theft Auto. The programming and physics would allow scenarios and simulations from car-chases through hazard

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management and policy projection. These plans could be used as a **G**ame, but we tend to term these 'serious games': interactivity in real-time that actually helps us achieve things and make decisions. However, unlike the cut'n'dry of, say, GIS, these technologies are three-dimensional and cinematic – just like the places we are planning for.

The games industry is a serious space. It is only about 30 years old, but is now worth US$28b. The global film industry, by comparison, stands at about US$45b. Price Waterhouse Coopers reported that video games will overtake music in value by 2008, with worldwide consumer spending on video games hitting $55 billion compared to $33 billion for recorded music. Of course, games have music too. The average gamer is now 30 years old, no longer teenagers. Women make up a third of the console gaming community and 40% of the PC community, and while many of these women are casual gamers – they are perhaps waiting for a reason to be inspired. Interactive and intuitive programs that actually do meaningful things may be a reason to inspire more users, including women.

Games mean interactivity – rather than the couch potato or the cubicle slave, as Tom Peters proffers. Now we are involved in our worlds, exploring places and options within places, testing ideas with immediate feedback, meeting creative projections of people's imaginations in exotic and bizarre locations, and gaining powers and skills we have only fantasized about. Best of all, this occurs all from the comfort of our living room or 'home cinema'. There is no reason, why this can't occur from the 'work' space also. Besides the 'real economy' of games – producing and selling them, there is another virtual economy evolving that could have serious implications. In games, virtual real-estate can be worth a significant amount, and can be traded on eBay, or other forums, for real money. As with the real economy – it depends on demand and supply. Similarly, characters, powers, wands and tools that are developed through a player's efforts also have real currency value.

Gaming technology, the programming and physics behind the typical urban thuggery of Grand Theft Auto, can do much more than permit gangsters to maul civilians, or provide an endless array of weapons and opportunities to deploy them. The realism of the worlds, the reality of physics, collision, the integrated databases, shadows, weather and townscapes offer endless potential for use in the management of the environment. It is actually a small step to move into the world of 'real' town planning with virtual tools – including city building, hazard management, asset management and community engagement.

The standard format for managing urban form today is the town plan and associated supplementary guidance and policies. This is, typically, a volume of legalistic-style text of biblical proportions, with few pictures, in 9-point font, double-columned and pages double-sided. Can we expect community engagement with this? Hardly. Do the creators of the built environment understand it? Members of the Property Council of Australia, ie developers and the creators of the built environment, have recently admitted they don't. I have a PhD in planning – but asked what does that pile of words in the town plan imply about what this place might look like in the future, it would be some guesswork. Another gripe is that the policies of the modern Town Plan are misguided in terms of place generation. In general, the modern

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Town Plan (or planning scheme) is an incomprehensible bungle of administrative misapprehension.

Town Plans once had pictures guiding as how we might build a nice streetscape corner, or how streets should be arranged in this area for maximum amenity and social engagement with convenience of access to our home and local facilities. This occurred from the turn of the last up until the middle of the last century. Unfortunately, traffic efficiency came to dominate (with most planners at this time engineers or architects), with quality urban fabric ripped to shreds in so many cases, especially across Europe and the UK. There was a resultant loss of environmental quality and planners have had the fear of master-planning and design guiding ever since. Only recently are these skills being re-deployed – separate to Town Plans.

Now we get an over-concentration either on the minute, such as paving material, or building controls (height, GFA, setback) applied as standards across a whole city. And what do our new streets look like? They are certainly not part of any enlightened urban renaissance. Similarly, urban infrastructure insertions are not leveraging placemaking and human-centred renewal into the equation. Just big roads and 16-lane intersections.

3D Planning:

The Town Plan has a new opportunity, thanks to the humble shoot-em-up. Firstly, we can now build the entire city with all the parks, trees and buildings, benches and bollards, in very short order. There are thousands of young men with skills to model. It is quick and cheap – and typically most of it exists in a dispersed fashion across numerous departments and practices. This model can be used in-house, on off-the-shelf computers, and projected on big screens for meetings and consultation. The models can also be published online, like Google Earth, so you can immerse yourself in any place from any location. This is the most basic mode of the Online City, and is starting to spread amongst city management agencies. We start with an accurate terrain, and by whatever means at our disposal and with our budget, create the buildings from standard boxes in the right location, through to detailed modelling, outside and maybe inside, and then photo-texturing.

The typical user, or player, with this 3D go-anywhere world, can now see exactly what is there and what is about to happen to it. Whether we are playing with a conceptual box on a plot to ascertain the right conditions (eg height and setback) for that specific location, for any number of local, contextual, circumstances, to inserting an accurate architectural model for detailed visual and environmental analysis. Planners actually do this a lot, but in their imagination. We only have two-dimensional GIS information, with an aerial photo, and a developer's abstract blobs or architectural lines (sections and elevations) to go from. So, from this very un-advanced games scenario, the planner can walk around the proposal, even if it only a few boxes in space, see the proposal from any other location in the city, such as the third flat up on the left from 268 Smith Street, and check the viewlines, enclosure, vistas and so on. This can be shared with other officers, and it can be shown to Councillors and concerned neighbours. We might find, for a particular site, due to its topographical, townscape and spatial context, that an increase in height is the best design solution. Becoming slightly more advanced, we can publish this online for anyone to see, and even alter, what is proposed. As Confucius said:

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Tell me, and I will forget.

Show me, and I may remember.

Involve me, and I will understand.

Games-Based Planning:

But this is only the beginning. Games engines allow us to start playing not just with the colour and shape of proposed form, but we can move the sun across the sky for exact shadow analyses, we can change the weather from rain to sun, or calm to wind, to help understand pedestrian comfort and so on, we can move from day to night. We database links and artificial intelligence for any number of virtual assets. In terms of Role Playing, we can drive a car, ride a bike, walk with a perambulator, or move about in a wheelchair – with the real physics and limitations of these movement modes. Of course, we could also hop in our F1-11 parked on the roof. In terms of being Multi-Player, because we can publish to the internet, vast numbers of people can be simultaneously in a scene, or a world, who may meet and interact. Sure, you could punch each other up, but in this game the rules are about community and sustainability – and so such behaviour will land you in jail and cost virtual money. Games have plots, and plots are scripted and programmed. Mortal destruction or rewards for eating ice-cream (which, as any child knows, increases your happiness – as is programmed into Disney's ToonTown MMORPG), are but choices of the producers.

If this is not enough, there is so much more. Besides real-time, three-dimensional asset management, hazard scenario simulation with fires and bombs and police and ambulances, besides integration with traffic models to have the real flows from that time of day in that location, and real signalling – we can also simulate the future. We can play the game of creating the sustainable city – based on the real starting point.

Our 3-inch deep town plans are about creating a better future in our streets and cities on many levels. To do this we look at demographic and economic information and make statements about form to accommodate growth or decline in what we try and imagine will be an amicable, preferably wonderful, live and work (being and doing) environment. The tools we use are a few numbers and words relating to elements – but the only way we get to test them is by asking an architect, or a 3D modeller, to draw some buildings for a said place within those policy restrictions. We observe, adjust and redraw. This is a slow and costly process and thus is barley used. But now, we can simply project the plan policies forward in our MMORPP and experience our proposed spatio-physical futures, from street level.

The town plan is now predictive. Press the Big red Button – and there it is. Repeat. Instant feedback. If you are unhappy with how it looks, or the statistics on social or environmental conditions - adjust your policies, adding and subtracting as you please, and repeat. You will never predict exactly how the form will emerge, but you can increase or decrease specificity depending on local intent and context. You can set very precise, location specific policies and form-space controls for a set of buildings that are accessible for all to see. These local form-based policies, embedded by the City Council in the 'game' could be the actual policies for development to comply with. Developers could observe, provide a design option, test feasibility and test council and community response very quickly. The new digital Town Plan itself could give a score for the development's sustainability and urban design credentials.

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In this MMORPP paradigm, our distributed gamers become very useful. These hard-core players could achieve better score across the pillars of sustainability than the Council's own policies. These could be reviewed, and perhaps that now becomes the urban policy.

In sum, computer technology already allows us to create buildings, streets and whole cities for townscape evaluation. Gaming technology immediately allows us to make this into a 'real time' scenario accessible on most modern computers (with graphics cards) so we can fly anywhere and see everything. Any number of disjointed databases exist, in relation to traffic, power, demographics, etc, that can be integrated into these models for increasing usability and simulative realism. The savings from these steps alone in holding costs, economic growth, community engagement, hazard and asset management is enormous – certainly well beyond the cost of production from a 'whole of government' perspective. Beyond this, however, lies the predictive 'game', as the Town Plan, allowing users to test their ideas and proposals in an objective, almost scientific manner, to give feedback for how we can feasibly make better places locally or regionally.

Urban Circus pty ltd is an R&D company, inspiring and investing in the latest technology for city building. We can make your entire city, or just a street, a 3D reality as good as any computer game today. We are driven, however, by the vision of cinematic, simulating Town Plan for making better places. Investors and skilled practitioners who share this passion and would like to help catalyse this vision, are welcome to become part of the circus network.

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