Virtual Worlds: Why People Play

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Ask people why they play virtual worlds, and their response is likely to be some variant of "to have fun". This is pretty well the bottom line for players, but it's not detailed enough to be of much use to designers. *What* do they find fun? *Why* do they find it fun? How does their idea of what is fun *change* over time? What can designers do to make them have *more* fun? And what happens when they *stop* having fun?

Introduction

The hypothesis outlined here asserts that virtual worlds are about the *celebration of identity*. It stems from the observation that different players find different kinds of thing "fun", and, furthermore, that their idea of what constitutes "fun" changes along predictable lines as they play. The hypothesis also suggests that there is an age-old precedent for this.

Player Types

The original player types model [Bartle96] divides players into four categories, using two axes that express a player's degree of preference for acting on or interacting with the virtual world itself or its (other) players. Figure 1 illustrates this as a graph.
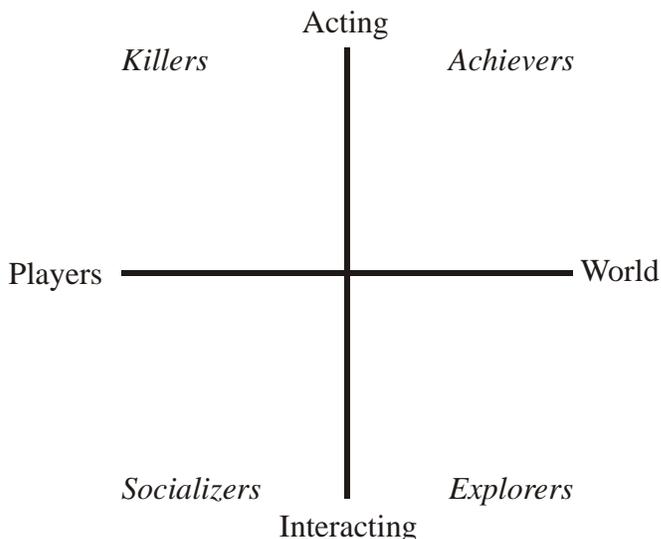

Figure 1. The original player types graph.

This gives four broad types of players:
- *Achievers* like acting on the world. They are typically gamers, playing to "win".
- *Explorers* like interacting with the world. They delight in discovery.

- *Socializers* like interacting with other players. They spend a lot of their time chatting.
- *Killers* like acting on other players. They wish to dominate them, either through bullying or through politicking.

Flaws in the Model

Although this model has been generally accepted as a useful tool among designers, it nevertheless has flaws. Two are of particular importance. Firstly, it suggests that players change type over time, but it doesn't suggest how or why they might do so. Secondly, all of the types to some degree, but especially the one for acting on players (that is, *Killers*), seem to have sub-types that the model doesn't predict.

A New Player Types Model

The issues were resolved [Bartle03] by adding a third dimension, *implicit/explicit*. The distinction boils down to "thinking before doing": implicit action is that which is done automatically without the intervention of the conscious mind; explicit action is that which is considered or planned for, generally as a means to achieve some desired goal or effect.

A Third Dimension

This new dimension creates a 3D graph, with 8 player types instead of 4, as shown in Figure 2.
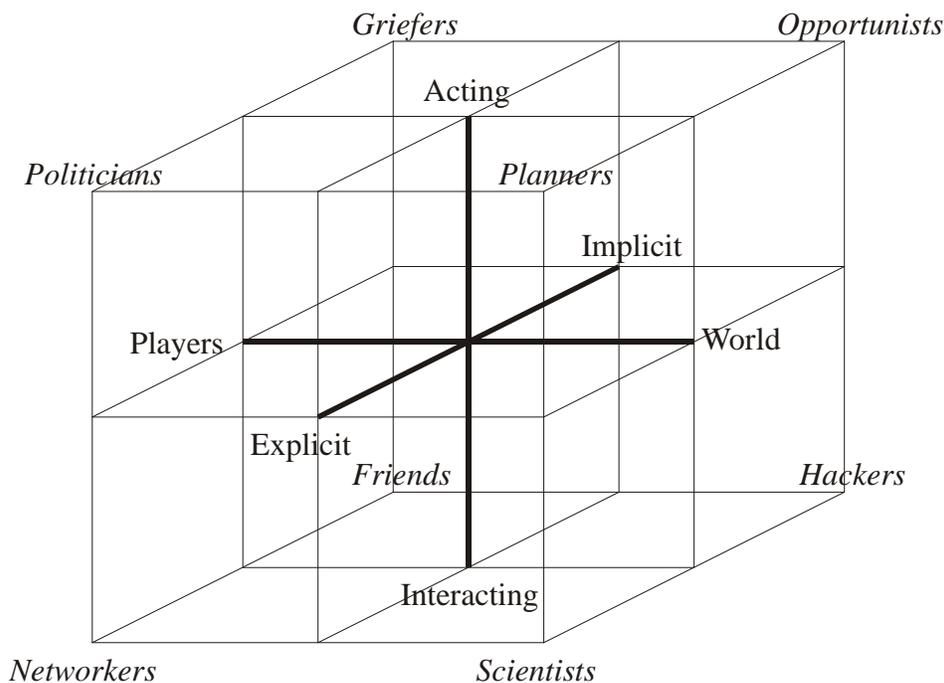

Figure 2. The 3D player types graph.

Each of the original types now comes in two flavors.

Opportunists are implicit *Achievers*:
- If they see a chance, they take it.
- They look around for things to do, but they don't know what these are until they find them.
- If there's an obstacle, they do something else instead.
- They flit about from idea to idea like a butterfly.

Planners are explicit *Achievers*:
- They set a goal and aim to achieve it.
- They perform actions as part of some larger scheme.
- If there's an obstacle, they work round it.
- They pursue the same idea doggedly.

Scientists are explicit *Explorers*
- They experiment to form theories.
- They use these theories predictively to test them.
- They are methodical in their acquisition of knowledge.
- They seek to explain phenomena.

Hackers are implicit *Explorers*
- They experiment to reveal meaning.
- They have an intuitive understanding of the virtual world, with no need to test their ideas.
- They go where fancy takes them.
- They seek to discover new phenomena.

Networkers are explicit Socializers
- They find people with whom to interact.
- They make an effort to get to know their fellow players.
- They learn who and what these people know.
- They assess who's worth hanging out with.

Friends are implicit Socializers
- They interact mainly with people they already know well.
- They have a deep/intimate understanding of them.
- They enjoy their company.
- They accept their little foibles…

Griefers are implicit Killers
- Attack attack attack!
- They're very in-your-face.
- They are quite unable to explain why they act as they do, although they may offer rationalisations they'd like you (or they themselves) to believe.
- Their vague aim is to get a big, bad reputation.

Politicians are explicit Killers
- They act with forethought and foresight.
- They manipulate people subtly.

- They explain themselves in terms of their contribution to the virtual world community.
- Their aim is to get a big, good reputation.

This new model explains the differences between sub-types apparent in the original model, but it's not immediately obvious how it accounts for the fact that players change types over the course of time.

Development Sequences

Almost a decade before the concept of player types was formulated, it was known that players changed their behavior over time, and that this *drift* often (but by no means always) followed a pattern:
- Newbies began by killing one another.
- Having tired of fighting, they began to explore the virtual world.
- Once their knowledge was sufficient, they moved to trying to "win" the "game".
- Having won, they settled down and socialized.

In traditional player type terms, this would be *Killer* to *Explorer* to *Achiever* to *Socializer*, as illustrated in figure 3.
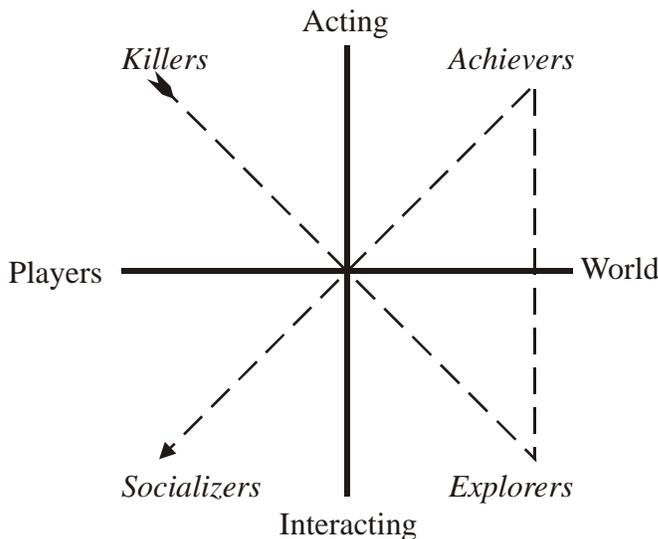

Figure 3. The Main Sequence.

Because it's the most popular progression, this is called the *Main Sequence*. It's not the only sequence, however: some players seem to oscillate *Achiever* to *Explorer*, for example, and others oscillate *Killer* to *Socializer*.

The 3D version of the player types model helps here. The Main Sequence, using this newer model, would be *Griefer* to *Scientist* to *Planner* to *Friend*, as shown in Figure 4.
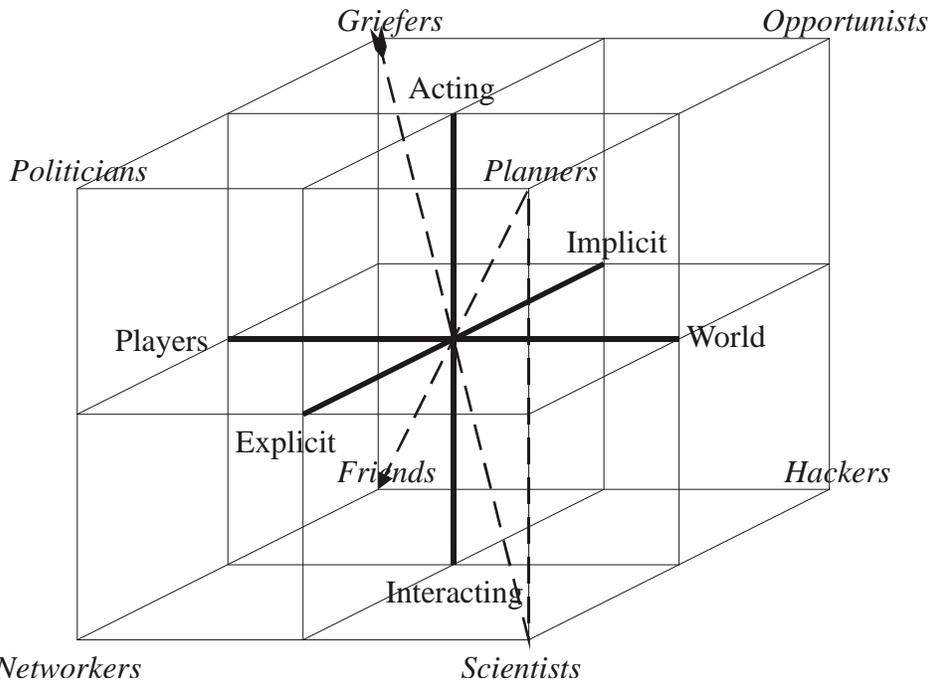
Figure 4. The Main Sequence in 3D.

The main sequence is visible in the 2D graph, but there are three other common sequences invisible there. These do, however, show up on the 3D graph, and are shown in Figure 5, Figure 6 and Figure 7.
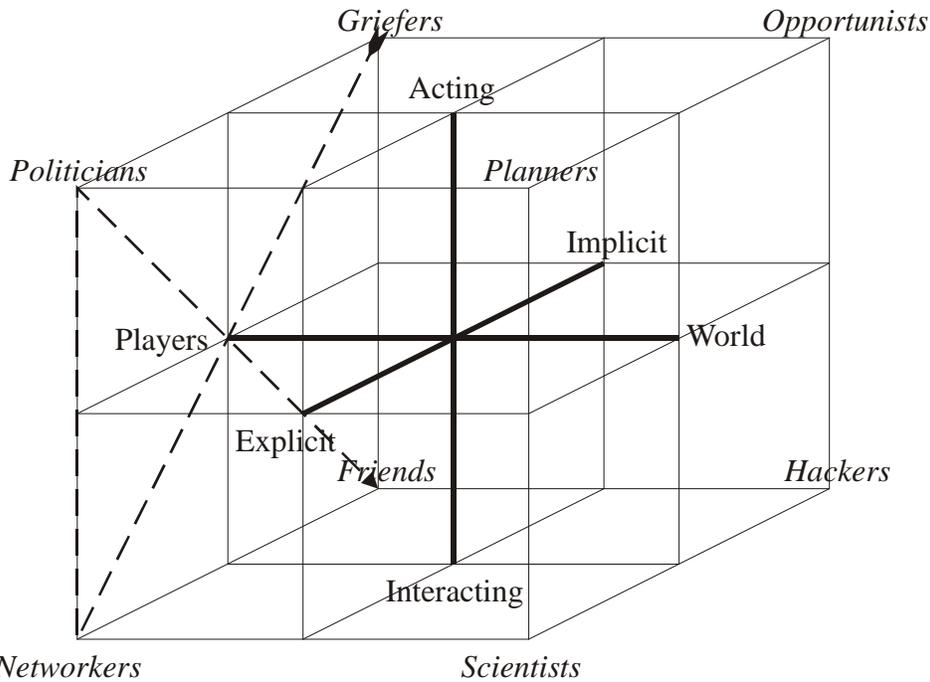

Figure 5. The Main Socializer Sequence.

The *Main Socializer Sequence* is *Griefer* to *Networker* to *Politician* to *Friend*.

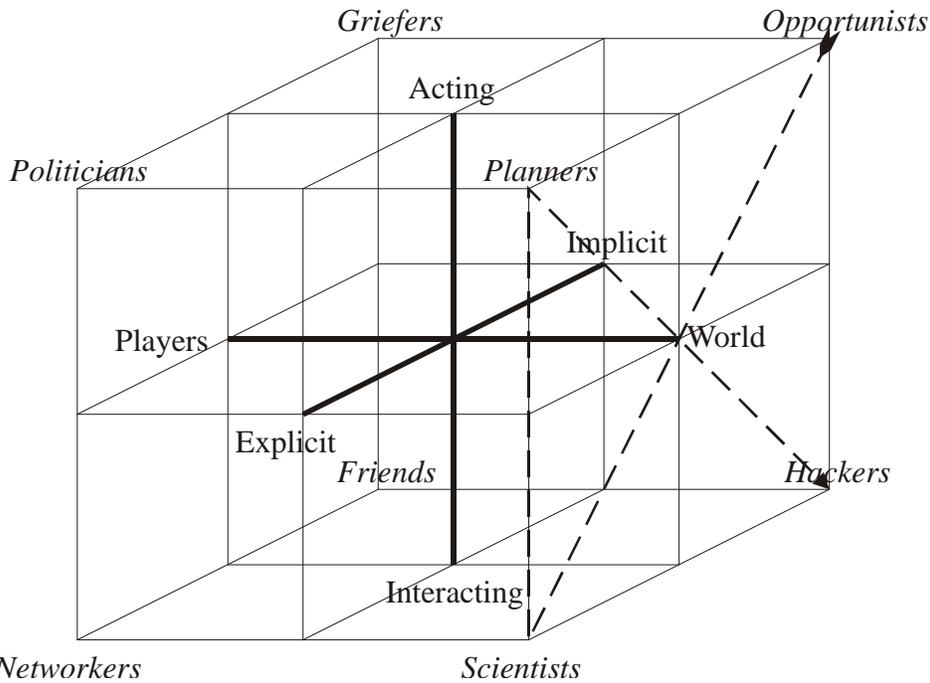Figure 6. The Main Explorer Sequence.

The *Main Explorer Sequence* is *Opportunist* to *Scientist* to *Planner* to *Hacker*.
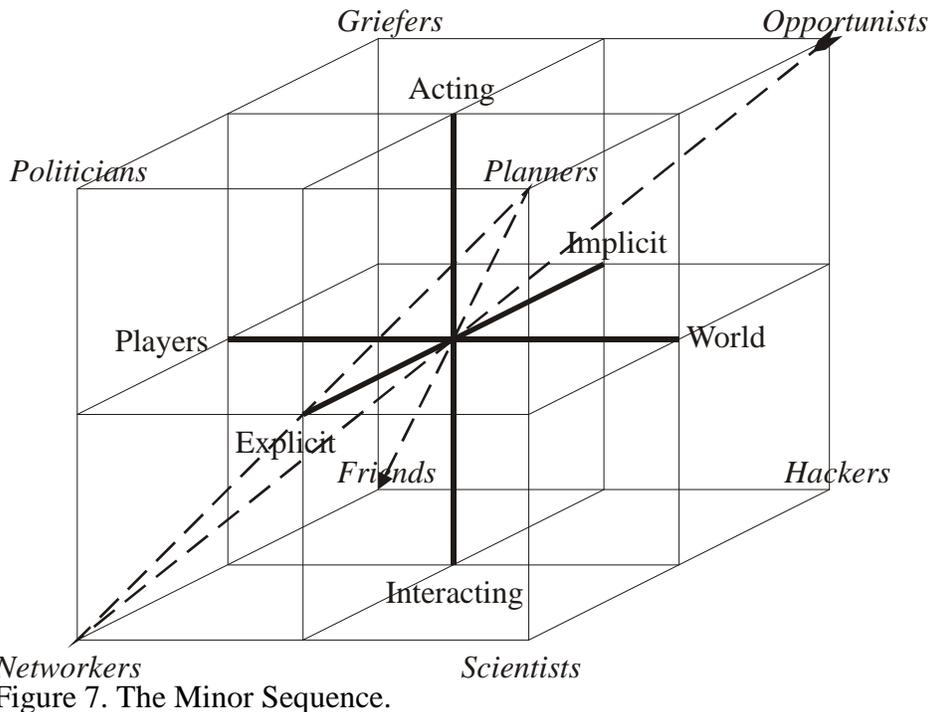
Figure 7. The Minor Sequence.

The *Minor Sequence* is *Opportunist* to *Networker* to *Planner* to *Friend*.

These four progressions are almost comprehensive, but not entirely so because circumstances can make players jump between paths at various points. A player on the

Minor Sequence could, for example, feel from their experiences networking that the virtual world itself was less interesting than the people who played it; they might therefore switch to the Main Socializer Sequence instead (although most would stay with the Minor Sequence).

Development Tracks

If we take all the sequences from the 3D diagram and write them out in combination with each other, we get the *player development tracks* of Figure 8.
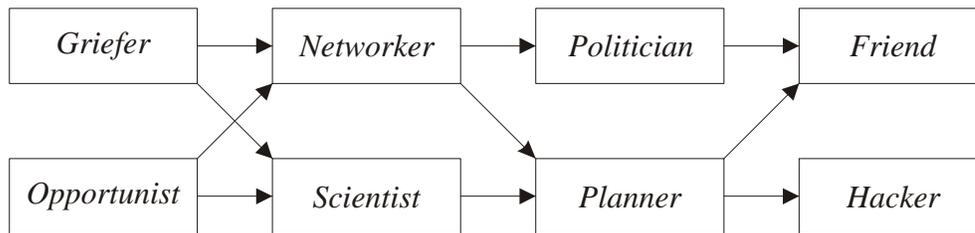
Figure 8. Player Development Tracks

The sequences all start off implicit, then go to explicit, then return to being implicit. There's an oddness in that although *Networkers* can choose to become *Politicians* or *Planners*, *Scientists* never become *Politicians*; this may be an actual phenomenon, or it may be that it does happen but is yet to be observed.

From these tracks, we can now see a more general sequence:
- Players start off by determining the boundaries of their actions, acting on instinct and their experiences elsewhere in similar situations. They do this either by trying everything that looks reasonable (*Opportunist*), or by pushing to their extremes (*Griefer*).
- Having determined the basic actions available to them, they begin stringing together meaningful sequences of actions – learning what works in combination with what else. They'll do this either by experimenting (*Scientist*) or by asking someone who already knows (*Networker*).
- Having acquired the necessary knowledge to operate effectively, they apply it to achieve what they regard as success. Success is measured either by the virtual world (for *Achievers*) or by other players (for *Politicans*).
- The players finally master their skills to the extent that these become second-nature to them. They now understand the virtual world (*Hackers*) or their comrades (*Friends*) implicitly, without having to think about what effects any actions may have on them – they "just know".

This "locate to discover to apply to internalise" path is how learning works in general. Babies will thrash around until they discover that doing *this* makes *this* happen to their foot; they will combine various sequences of such actions and find that if they do *this* then *this* then *this*, they can kick – moving their legs as a coherent action; they apply this

knowledge in the furtherance of other goals (I want the biscuit, the biscuit is over there – hey, I can toddle over and get it!); finally they toddle so much that they don't have to think about it any more – they can simply walk.

So now we have an explanation of drift in terms of player types. Unfortunately, we still don't know what drives this drift, nor why players consider it to be fun. It's clear that players are learning *something*, but what?

Immersion

A clue as to what it is that players are learning comes from an understanding of the concept of *immersion*.

What is Immersion?

Immersion is the sense that a player has of being *in* a virtual world.

It is related to the concept of *presence* – the illusion that a (computer-)mediated experience is not mediated [Lombard97]. Indeed, immersion is seen in presence theory as one of the several forms that presence can take. In virtual world terms, however, although presence is an aid to immersion (because the fewer barriers there are between player and virtual world the better), it isn't alone sufficient to cause immersion.

Immersion is also related to the psychological concept of *flow* – a deep involvement that transcends distractions and sense of time [Csikszentmihalyi90]. Although some players do indeed say "immersed" when they mean "engrossed", again there's more to it than that: players can experience flow when already immersed in a virtual world, but if flow were a precondition to becoming immersed then in theory they shouldn't be able to double it up like this.

For virtual worlds, immersion takes longer to develop than most players suppose. They feel that if they're playing and feel like they're in the virtual world then they are immersed; if they are interrupted they are not immersed, but if they return and pick up where they left off they're immersed again. This is correct, they are, but there are *levels* of immersion – it's not a simple binary concept.

Levels of Immersion

A 2002 survey by Nick Yee [Yee02] identified the desire to become immersed as a key motivational factor for players (along with three of the original player types – *Explorers* gave way to "leadership"). Immersion is not, however, the same kind of object as a player type. For example, although you can be both immersed and a socializer, you can't be both an achiever and a socializer.

So what is it, if it's not a type? Well, it's a *progression*.

There are four main levels of immersion, that players pass through in order: *unimmersed*, *avatar*, *character*, *persona*.

The human being sitting at the computer, interacting with the virtual world, is a player. A player controls an object with which they are associated within the virtual world, and the way they regard this object indicates how immersed they are. If they regard it simply as an object (as they might, say, a hyperlink), they are unimmersed. If they identify with it enough consider it their *representative* in the virtual world (a puppet that acts on their behalf), then it is an avatar. If they project their personality onto and through it to the extent that it becomes their *representation* in the virtual world, then it is a character. If they consider it to be *them*, in the virtual world, then it is a persona.

An avatar is a doll, a character is a simulacrum, a persona is a person – a player, in the virtual world.

Role-Playing

Immersion isn't itself the ultimate aim of virtual world play, but it does help deliver what players do want: affirmation of identity.

When an actor acts, they take on the role of a character. In playing the character, the actor comes to understand that character; through this understanding, the actor gains insight into their own situation. An actor can change as a result of playing a character; the character, however, does not substantially change. This is *hard role-playing*, in that the character played remains firmly fixed in its identity. There are virtual worlds specifically set up for this kind of role-playing [Goetz95].

With hard role-playing, you can only learn as you approach a character; when you reach it, you can learn no more from it. This leads to a paradox: as a role-player, you try to become your character, but if you succeed then you're no longer role-playing.

Most virtual worlds, however, use *soft role-playing*. Here, not only does the player change to fit the character, but the character changes to fit the player. The very aim of soft role-playing is to align character and player: to find a "you" that you like to be. Perturbations in the character that are received positively or negatively are fed back into the player's self-image: it's as if virtual worlds provide, through characters, a mirror for players to reflect upon themselves. Because you can see yourself, you can't lie to yourself; if you don't like what you see, you must change until you do.

Again, the fact that players and characters change to fit one another was noted in the early days of virtual worlds, where it was known as *drift* – the same term that was applied to changes in player type. Although this was a coincidence, we shall see shortly that the two are not unrelated.

Immersion and Identity

As players become more aligned with their characters, they become more deeply immersed in them (and in the virtual world). At the same time that they are experiencing this increase in immersion, they are also progressing along the development tracks as described earlier.

Ideally they should reach the ends of both at the same time. However, if the virtual world has too much of a treadmill then they could reach full immersion before they finish: this will lead to feelings of frustration – they feel they've won, but the finishing line is still distant. Similarly, if the virtual world allows content to be consumed too quickly then they could finish before they reach full immersion: this will lead to feelings of dissatisfaction – they've crossed the finishing line but they don't feel they've completed the course. The job of the virtual world designer is to ensure that most players become their characters at roughly the same time that their characters' skills become internalized.

So we know that players develop along predictable lines (development tracks). We know that they become increasingly immersed as they play. We know that the two progressions should coincide in their completion. What we don't yet know is what drives the process and links the two together.

Myth

The force that propels player development and immersion, gluing them together, comes from what (at first glance) may seem a non-obvious source.

The Hero's Journey

In his 1949 masterpiece, *The Hero with a Thousand Faces* [Campbell49], Joseph Campbell traces a common thread that runs throughout the myths of all cultures. Ancient tales from across the world all follow the same, basic formula – the *monomyth*, or *hero's journey*. Campbell speculated that this was because myth has its roots in the human psyche: a universal need to explain the same social, worldly and other-worldly concepts that trouble each and every one of us. He drew on myths from Nigeria, North America, Australia, Phrygia, China, Iceland, Bali, Persia, Mexico, Finland, Cambodia, Peru, … ; he referenced the epic tales of Gilgamesh, Arthur, Vishnu, Osiris, Moses, Cuchulainn, Buddha, Jason, … ; he explored narratives such as Homer's *Odyssey*, Dante's *Inferno*, *The Sleeping Beauty*, *Anna Karenina*, *Faust*, *The Frog King*, … .

The hero's journey is alive and well today as a narrative theory. It has been applied before the event to create stories (as with the movie *Star Wars*), and after the event to explain them (as with *Harry Potter and the Philosopher's Stone*). Some virtual worlds (for example *Shadowbane*) deliberately use the hero's journey formula to guide quests for players.

Here, we also apply the hero's journey formula to virtual worlds, only not in quite the same fashion.

The Quest for the Self

The way the hero's journey works (and we shall be going into the details shortly) is that an individual passes through a prescribed set of stages leading from self-ignorance to self-mastery. The individual travels from the mundane world to be reborn into an "other world" of danger and the unknown, where normal rules do not apply and in which the bulk of their adventure takes place; having succeeded there, they then return to the mundane world armed with new knowledge and experience (a renewed sense of *self*), to address whatever issue drove them to the world of myth in the first place.

Now in myths, epics, books, movies – and indeed in all forms of fiction but one – it is the protagonist of the myth, epic, book, movie or whatever who undertakes the hero's journey. The reader identifies with this character, and therefore gains an insight into their own situation, but they don't undertake their *own* hero's journey. How could they? Any world of myth must by definition be apart from reality, so how could anyone ever hope to visit one? *You* don't get to be a hero from watching *Star Wars* – Luke Skywalker does.

The single exception is virtual worlds. With virtual worlds, the player *can* and *does* embark upon a hero's journey – not as a *character*, but as *the hero*. The virtual world is the "other world" you visit from the real (mundane) world, and *you* are granted hero status – if you complete the journey.

A Hero's Journey to a Virtual World

The hero's journey has three phases: *Departure* (which takes place in the mundane world, *i.e.* reality); *Initiation* (which takes place in the world of myth, *i.e.* the virtual world); *Return* (which brings the hero back to the mundane world). Each of these phases is split into a number of steps, some of which in the first and third phases can occasionally be skipped or reordered.

The easiest way to show the hero's journey as it applies to virtual worlds is simply to list the general formula, step by step, as it maps onto the experience of a player of virtual worlds.

Departure

Departure is made up of five steps, usually undertaken in the following order:

The call to adventure.
> You see an advertisement or a shelf unit or a cover disk, or you read an article about the virtual world. Where previously you were unaware of the virtual world's existence, the seed has now been sowed.

Refusal of the call.

There are lots of reasons not to play: time, expense, fear of looking foolish… For some people, this is as far as it goes; for you, your desire to play overcomes your self-created objections.

Supernatural aid.
A friend who already plays offers to help you out, or you find a web site with a welcoming forum; perhaps you peruse a strategy guide. Whatever, you know that you will have support in your endeavor from someone who knows the score. Thoughts of possible failure diminish.

The crossing of the first threshold.
You install the client software and connect to the virtual world.

The belly of the whale.
You create a character – a new *you* – and are ready for your adventure. It's a formal *rebirth*.

Initiation

Initiation is made up of six steps, almost always undertaken in the following order:

The road of trials.
Here, a number of obstacles present themselves. In overcoming, evading or avoiding them, you start to find your feet in the virtual world. This is the *Opportunist/Griefer* stage from the player development tracks.

The meeting with the goddess.
The "goddess" here is a metaphor for the totality of knowledge. Having determined the extent of your limitations, you become aware of how these stack up against what you will have to know in order to succeed. For some players, the task looks hopeless and they drop out; for you, it is a call to acquire for yourself the knowledge you will need if you are to progress further. This is the *Scientist/Networker* stage from the player development tracks. In terms of developing your sense of identity, the suggestion is that by learning about the virtual world and/or its players you are learning more about yourself.

Woman as the temptress.
Here, "woman" is symbolic of your old-world origins, and this step marks the turning point between learning and doing. Having acquired the knowledge necessary to continue, are you content to leave it at that, believing you could apply it if you wanted to (but you don't)? Or are you in for the long haul, having faith that what will happen if you continue is better than what will happen if you don't? In player development track terms, this is the boundary between *Scientist/Networker* and *Planner/Politician* – an affirmation of commitment that separates the two "explicit" quarters of the track and the mid-point (in terms of progression, if not time) of the journey.

Atonement with the father.
> This is the key step of the hero's journey, and is the one in which players tend to invest the most effort. It's what, when you started, you felt the virtual world was "about". It maps to the *Planner/Politician* stage, where you strive to "win" – to be recognized by the virtual world *in its own terms* as being a success. The "father" here is the person who has the supreme power over the player in the virtual world – the designer, in other words, as manifested through the virtual world's design. When the virtual world ultimately acknowledges that you have "won" it, you have the closure you need to be able to move on to a different order of "play" entirely.

Apotheosis.
> Players wind up here as *Hackers/Friends*. You understand the virtual world, its people, and yourself; you are at peace with all. Challenges from the virtual world, when they arise, are no longer important. It is a period of rest.

The ultimate boon.
> This is where the match between hero's journey and the virtual world experience goes a little astray. In myth, heroes typically acquire a token of their achievement (the "boon") which has meaning in the real world; often, obtaining this will be the formal reason they visited the "other world" in the first place (Jason specifically voyaged in the Argo to obtain the Golden Fleece, for example). Virtual worlds suffer from the same problem as other fictional worlds here, however: the only things in virtual worlds that have a material existence beyond that world are its players. Thus, whatever prize a player may be awarded in the virtual world, it can't be removed to the real world except in facsimile. That said, there *is* one possible candidate object for the boon: the new, wiser you. Although in myth this may well be what the boon is meant symbolically to denote, in virtual worlds the symbolism has to move aside for purely practical/implementational reasons. As we shall see, this has mildly irritating consequences for some later steps in the journey.

Return

Return is also made up of six steps, usually undertaken in the following order:

Refusal of the return.
> In the virtual world, you have power, respect, friends and peace. Why would you want to return to the real world?

The magic flight.
> In myth, the hero's return from the "other world" is precipitated by their possession of the boon. The previous owner wants it back, the hero can't therefore stay *and* have the boon, so must escape back with it to the world of the mundane – usually with the previous owner in hot pursuit. For virtual worlds, the identity of the "previous owner" of the boon (*i.e.* of you) is not apparent. In theory, it should

be the developer: they own the boon as manifest in their virtual world (*i.e.* your character). Unfortunately, developers are content for this boon merely to exist in their virtual world, and the very last thing they want to do is to hound you out. The magic flight is thus robbed of its trigger: you don't want to leave, the developers don't want you to leave, so what might provoke you into leaving? The next step may provide the answer…

Rescue from without.
The hero's return to the mundane world is often aided by a denizen of that world; in our case, this probably means a family member, a friend, or a work colleague. All they have to do is what they've always done: raise real-world issues. You, however, now begin to listen. Suddenly, for example, "Why do you spend so much time on that computer?" doesn't have such a clear-cut answer as it once did. In myth, the rescue usually occurs in an exciting, up-front, action kind of way; in the boon-as-self of virtual worlds, the issue is not so much that you need *help* to leave as that you need an *excuse* to leave. Once someone in the real world gives you that excuse, *then* you'll be subject to the full array of temptations thrown down by the developers to try to prevent you from going. For virtual worlds, therefore, it seems that although the *magic flight* and *rescue from without* steps exist, their order of appearance is reversed.

The crossing of the return threshold.
Arrival back in the mundane world is something of a shock; you must reconcile your new self with the legacy of your old self. The world has carried on without you, and you must address its outstanding challenges. Although these once seemed formidable, however, they can now be overcome with relative ease (perhaps using the boon). Note that this isn't a complete break with the virtual world, just a parting from it as the most important place in your life: although you could decide to cancel your account, this would only ever be for practical reasons (*e.g.* expense) rather than symbolic ones. It's not that you *stop* playing, it's that you stop *needing* to play.

Master of the two worlds.
Here, you finally accept your destiny. You have a sense of balance and proportion: your real and virtual selves are the same. You can return to the virtual world at will, but it has lost its mythical significance to you: it's just a place, now, like any other.

Freedom to live.
You can finally be yourself.

Analysis

It seems clear from the preceding mapping that players of virtual worlds follow a hero's journey. However, the match is not quite exact. It's not just the problem with the boon: there are other places where the practice doesn't quite ring true with the theory. Although

we can't go into those much here (see [Bartle03] for further analysis), it is worth noting that the critical *atonement with the father* step is not properly satisfied by most commercial virtual worlds. Players feel they have "won" the "game", but they don't get confirmation of this from the virtual world itself; they are therefore doomed to a state of perpetual frustration. They leave without wanting to leave, seeking validation in other virtual worlds that can at best offer but an echo of the acceptance they crave (and, indeed, that they deserve).

Things don't have to be this way, though: if a player is accepted by the virtual world as having "won" it, they are released from the treadmill to a state of blissful repose. They may stop playing the virtual world *as a game*, but (as master of the two worlds) they won't stop paying to access it. It would therefore seem that the best way for developers to retain their players indefinitely is if they *allow them to leave*.

Virtual world design theory does have its uses.

Conclusion

There's more to the hypothesis than is given here, but these other points would take several more articles' worth of text to convey. What happens to players who become derailed from the development tracks? Does the development of community have a main sequence of its own? Can the hypothesis explain players from cultures where people identify themselves with the group rather than as individuals? None of these questions are answered, nor are any of the others that you want to ask right now.

Some of these issues are addressed in [Bartle03], but some aren't. All are peripheral to the central thrust of the hypothesis, however, which is this:

- Playing virtual worlds is a kind of hill-climbing activity through identity space.
- The hero's journey is a good algorithm for finding a local maximum, if not a global one.
- Immersion is an emergent consequence of following the hero's journey.
- Players follow predictable development tracks as they play, exhibiting particular playing styles as they do so.
- The player development tracks correspond to the steps of the middle phase of the hero's journey. The other two phases take place in the real world, rather than the virtual world.
- Whatever a player needs to do right now to progress through the hero's journey is what they currently regard as "fun".
- The result of playing a virtual world is that players understand themselves more.

Virtual worlds are a quest for identity. By being someone virtual, you find out who you are in reality. It's *this* that makes virtual worlds fun, it's *this* that makes them compelling, and it's *this* that designers must understand.

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