

WE 'R' VR

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Hi Folks:

To support the idea that "We 'r' VR", we need to be able to tell people "how and why". Or, "what makes us different?"

Summary:

- *quality VR experiences through integrated systems*
- *we turn VR components into VR experiences*
- *we are integrating physical activity with virtual experience*
- *entertaining activity*
- *flexible, rapid prototyping VR design tools and skills*

The rest of this is sort of a rave. Not a lot of time here for edit and polish.

>> IWI is building systems which provide *quality VR experiences*. All of the software, hardware and interface devices are in support of these experiences. The customer sees *the experience*, everything else is (semi)invisible.

>> We are building an *integrated environment*, which means that all of the components we make are directly tied to the product goal, i.e. to quality experience in the virtual world. *Design of virtual world experiences* is integral to all technical and marketing activity, providing direction, specifications and project focus. (It is not the case that world design is an add-on activity coming in the latter phases of software/hardware development.) So, we 'r' *quality VR experiences through integrated systems*.

>> From a VR perspective, an exercise device (the recumbent, the treadmill, etc) itself is a *behavior transducer*, a mechanism for converting behavior in the physical world into input signals in a virtual world, and for converting behavior in the virtual world into consequences in the physical world. For example, the current recumbent demo converts physical leg movement into virtual body translation (moving forward) and physical hand movement into virtual body rotation (steering). When a participant steers up a (virtual) hill, that behavior in the virtual world results in a physical consequence of increased resistance in the recumbent pedaling.

>> We are building our proprietary software to work with *any* transducers, but (obviously) you can't connect any transducer to any world experience and maintain the quality of the experience. The main idea is that transducers (bikes, treadmills, motion platforms, trackers, hmds, heart rate measurers, etc.) are all *peripherals*, they are not central to our technical focus.

Our business is to create quality experiences, and the quality of those experiences is enhanced by matching the right transducers with the right world design (and the right marketplace).

>> Again, quality experience is an **interaction** between transducers, world design and participant (and computer). There is no reductionalist model which allows us to evaluate devices separate from worlds separate from the experience of participants. A consequence of integrated systems is that the whole is greater than the sum of the parts. (For example, you are more than a kidney and a liver and a lung and ...) This is another one of our advantages: we turn VR components into VR experiences. When we 'r' VR, we mean we 'r' the whole of VR, not a piece of VR.

>> Our strategic advantage as integrators (makers of wholes) is that we are independent of any single part. This is one reason why it is in our best interests **not** to fall into component manufacturing. Literally all of our competitors do not have the perspective, experience or tools to be integrators, so they each settle for a piece, a component. We can select among them all for the best, change at will, and upgrade rapidly without losing our strategic advantage. We can avoid competition at the component level, while having the essential skill desired by all component manufacturers, the ability to make their stuff useful.

>> (This is another competitive advantage, don't tell anyone) One significant way we are different is that we are integrating physical activity with virtual experience. We call this **virtual body dynamics**. The motion-based competition (Disney's Star Tours, Paramount's StarTrek) does not connect physical activity, their participants are essentially passive, although shaken around a lot. The video-game competition connects fine-grain finger and hand movements with the virtual world, but does not use the entire body for input.

>> So our client base are folks who want to **participate in fantasy**. Perhaps exercise boredom is best channeled into productive work, such as chopping firewood. But given the shortage of trees, next best is to channel exercise into adventure, like taking a wilderness hike. But given the shortage of wilderness, next best is to channel exercise into virtual activity, which can then furnish at least the illusion of trees and wilderness.

>> Sports training and all other visualization techniques (psychotherapy, success training, meditation, self-healing,...) are valid client bases.

>> Essentially, we are appealing to those folks who want to combine activity with entertainment. Buzz-word: **interactive entertainment**, read backwards as **entertaining activity**.

>> Here's another slice: there are three major components to a VR system: hardware, software, and virtual world. America is full of talented hardware folks, IWI faces very tough competition there. We have much less competition in software, in fact our proprietary techniques give IWI about two years lead on all competition. (The lead comes from knowing exactly what to do and how to do it, we have made most of the mistakes and figured out how to fix them. But remember that this competitive advantage is not in "bare software skills", it is in integrated VR systems software.) Finally, IWI literally leads the world in integrated VR experience design. To have expertise in world/experience design, you need to have had access to VR systems, have had the opportunity to dwell in the virtual world for lots of time, and have had the mandate to build and improve the experience. There are about five folks in the US who have done that. So once the competition gets access to flexible VR design systems, we will have an additional one year design lead on them.

>> An essential competitive advantage we have is *flexible, rapid prototyping VR design tools and skills*. The competition that does have full access to VR systems does not have rapid prototyping tools. We can build, modify, learn, and invent literally 100 times faster than they can. Its like racing a bike (them) against a car (us).

>> Metaphors for *quality VR experience*: painting, cooking, and exploring:

>>> Painting:

The hardware is the paint in the tube and the canvas.

The software is mixing the paints into selected colors.

The virtual world is the picture drawn on the canvas.

Quality VR experience is looking at the painting and liking it.

>>> Cooking:

The hardware is pots and pans and stoves and silverware.

The software is the preparation of the food.

The virtual world is the meal.

Quality VR experience is tasting the meal and liking it.

>>> Exploring:

The hardware is transportation (car, bike, mule), boots, knapsack.

The software is maps, the paths which you can explore.

The virtual world is the real world being explored.

Quality VR experience is getting out into nature and liking it.

>> The reason for these metaphors: we do not want to make pots and pans (we want to use them), we do not want to be stuck in the kitchen chopping carrots (we want to eat them), we do want to provide the meal (cause no one else can make it as tasty), but we really want to be able to chow down with gusto.

>> Simply put, people will give us money for good experiences.