Nathan Myhrvold

I've got to thank you again for the mail you sent to bill. Just between you and me, you helped us more with one piece of mail than our entire division in over a year! I think it helped a lot. We're psyched! Thanks!

From: Bill Gates
To: Barry Linnett; Karen Fries
Cc: Bruce Jacobsen; Mike Maples; Nathan Myhrvold; Steven Sinofsky; Susan Boeschen
Subject: Utopia
Date: Monday, April 05, 1993 10:59PM

I just read over "Utopia Characters and the Social interface" dated 3/11/93 and "Utopia design 1.0" dated 1/25/93. These document have some really interesting and exciting ideas in them. This kind of creativity is great.

While I wouldnt go as far as Nathan does in the enclosed mail and talk about this being almost an OS of its own I agree with his basic points:
a. Social interface is super important - certainly for new and casual users who we want to get with new home pcs and online services and as it is developed important for all users.
b. The Utopia group is doing excellent work thinking thru the issues of social interface and tools to help people build up these interfaces. The guidelines expressed in these documents are really good and it sounds like the tool design is practical and could become a real asset.

However I still believe:
a. Utopia Home will have to sell itself as an application that people want to use. The fact that it has this great future and is based on great principles is not enough. Some of the Q&A at the end of the design document got into some of the tough questions - I was glad to see them raised and answered with some confidence however I wont be fully convinced until I see Utopia Home running. It is possible for social interface to be totally the future and for Utopia home to not go far enough in areas like tracking to be satisfactory to users. 3rd parties wont do anything unless Utopia Home is a big hit - the equivalent of Excel and Word for Windows.
b. I am still hopeful for a strong relationship between Utopia and Works. Utopia is important enough that I will live with a weak relationship but I will be disappointed in it.

Some specific points:
a. I think variety will be pretty important. Ideally the variety would be influenced by tracking data rather than just randomness but I think we should have lots of alternates for things the users sees a lot and a mechanism for avoiding repeating.
b. Tracking is important. Has the user used this command before? Do they use it a lot? Is this a user who is doing things quickly and confidently? Various tracking parameters like this have to be standardized so the character designer can classify reponse choices based on this kind of data. From reading the document it sounds as though the tracking was going to be very very weak and I think that is a problem although I agree tracking is a tough issue. I think we may need to break a more new ground on this even at the start.
c. I was confused the character action table versus the snippet table. I guess the character action table is where the application lets the character do some animation and perhaps one of more balloons whereas the snippet is a case where a string that is fetched is incorporated in a string that is application specific. It confused me that some things appeared on both lists (found) and some on only one.
d. I was confused whenever it said in a couple of places that "specialist characters can add vocabulary snippets" but normal characters cannot. I think that every new application will invent new character actions and snippets. Maybe Utopia is thinking we can have a universal set of character actions and snippets for all applications so that a new character can work everywhere and that only special characters are "applications specific". I wonder how easy it will be to make the actions and snippets universal to all applications and I would view that as a future goal.
e. Why limit the font to only one font in the balloon? This is post-GUI not pre-GUI
f. I guess tutorial and help and cue cards and wizards are all subsumed by the character interaction.
g. Its random but people might want a way to"stimulate" the various character responses directly rather

than have to use the application to try and find all the responses - like what does are all the greetingss? Maybe this is giving too much away but its kind of like Encarta letting you find all the articles with animation easily.

h. It didnt say it but implicit in this is that we might develop "brand name equity" in various characters. This is pretty interesting.

i. Is this schedule I am looking at different from what I saw in the past?

j. Not a word about relationship to Works in this document.

I am thinking about what degree and when these design approaches should be used in other products. Many of the "candidates" are consumer group products although if we could do this for Office and make it work it would have the greatest profit leverage.

From: Nathan Myhrvold
To: Bill Gates
Subject: Utopia
Date: Wednesday, March 17, 1993 6:27PM

I spent some time with the Utopia group and read their specs. This is very impressive work - some of the most innovative stuff done in WPG. Actually, I'd be proud of it here too - it is a good example of really trying to change the rules.

One reason that I like Utopia is that I am a big fan of the anthropomorphic approach to UI as being a neat new approach. It might not be a panacea, but it is very novel and I think that it has the potential to capture people's imagination.

The notion of whether it is "easier" or not is part of this, but I think that "ease" in a strict sense is not the issue. It is really a question of how people percieve it. Whether they get more work done per unit time is nice, but the bottom line is that it can seem to be more fun and inviting - at least in some cases with some people.

I am very interested in using Utopia (suitably modified) as one of the interface choices on the ModWin 2 box - both player and cable versions. I think that it also has a lot of potential in certain kinds of on line service interfaces.

> From a business perspective, the interesting thing is that they are essentially writing an operating system. Yes, it sits on top of Windows, but since it provides services to applications which will require it to be on the machine, it is as much of an operating system as Windows is.

Is this inconsistent with our primary Windows strategy? I actually do not think so. I have championed the scalable Windows platform notion and I still think that this is extremely powerful, but inevitably there are going to be areas and markets in which we are not going to able to have Windows by itself be competitive. The only systems project that really might have some concerns about ISV overlap and confusing messages etc is our ModWin efforts - and I'm saying that we are not worried.

The idea of supplimenting Windows with add ons environments which extend it is terrific, and whether this was the original plan or not, Utopia is an ideal way to do this. In the early stages most people will not consider it to be an OS - it is just this extensible shell for home/entry. We can sell it retail and do aggressive bundle deals with OEMs to build share. If it takes off and gets reasonable market share and a lot of third party applications, then we can start grooming it as on OS in a more direct way. Within its specific market segment it ultimately becomes a standard suppliment to Windows, as Windows did to Dos.

If it does not take off, there is very little to be lost. We don't look bad from a systems perspective because it is a niche part of the business and it isn't a main stream business. At worst is a dud from our consumer apps group, but people expect us to be experimenting there.

This is basically the HP New Wave strategy, with the exception that New Wave was trying to do things that are hard to do outside the OS, whereas Utopia concentrates on things that are much more reasonable to implement as a suppliment. The other difference is that the market niche they are targeting is far more ripe for a new approach than the core office market. Geoworks, Deskmate and a bunch of other oddball products have been able to establish a foothold there.

In fact, we are open to competition in this area - people who create a retail app-like product which later

grows into system software.   Notes is trying to do this within one part of the market. If Apple was sharp they would do something like Utopia for the Mac, get ISVs to support it and generate a lot of their usual hoopla. The they should a native PC version (either on Windows, or better yet on a raw machine or Dr Dos) sold as retail software to try screw us in the home. They could license it to consumer electronics companies and try to make it a standard that undercuts us.   Novell/DRI is another company that really should be doing this - it would be much easier for them than trying to clone Windows. They could make both a Windows add on version and a standalone product built on Dr Dos.

My version of the golden rule says we should "do it unto others before they get around to doing it unto us".   We do not have to do a Mac version (and certainly not initially) - just get this out there as home PC product, grow it into an environment, and roll it out with our consumer systems/MM plans.

There are a lot of ways in which Utopia is not very full featured as an OS - just as Windows 1.0 wasn't very full featured. Many of the additional facilities will be supplied in the ModWin 2 system we are building - better support for games and entertainment, better graphics, sound, animation support, a solid MM authoring strategy etc., perhaps some home control architecture...   I think that there is a lot of synergy between ModWin 2 and Utopia and as I said above I want to use it.

The really extreme view is that we could take Utopia (perhaps extended) as the ONLY direct path to consumer devices.   I.e. a home PC might run both Windows apps and Utopia apps in which case Utopia is a shell, but a ModWin2 player might only support the Utopia API set, or a small Windows subset plus Utopia. The motivation is primarily that we have a much better chance of getting this to work in a limited machine, rather than trying to do a Windows subset. This extreme view might be crazy, but it is interesting to think about.

I hope that this will get the right kind of support and attention from management in consumer apps so that they understand this opportunity. If you take this from a systems perspective the strategy is much different - for example you optimize for market share rather than profit in the early rounds, and you view third party ISV support as being even more critical.

Anway, I am a real fan of that project, and I hope that it continues to get the appropriate amount of support.

Nathan