

July 13, 1982

To Alan Kay from Bob Stein

Following are some initial comments on TIES and related subjects - QUBE and videotex.

There are several sources of these impressions, including:

- attendance at the recent Videotex '82 conference in New York (this is the major international meeting of the year dealing with videotex)
- a visit to the QUBE operation in Columbus, including discussions with people responsible for programming, marketing and technical matters
- meetings with:
  - Terry McGarty (the main man at WAMEX responsible for TIES reporting directly to G. Hauser) and two of his people, Mike Steckman, an engineer, and George Ravitch, the manager of market research
  - Tom Rush, the VP of WAMEX responsible for developing business in the commercial sector
  - Norm Smothers and Conrad Jutson of Atari; plus the opportunity to read an extensive marketing report prepared by Smothers on the TIES venture

As far as TIES goes, your suspicions seem to be well-founded. At present the venture would appear to be ill-conceived and heading in a questionable direction. Although my investigation to date is hardly exhaustive, the main reason why I need to use verbs like "seem" and "appear" is that it's difficult to pin down from one minute to the next exactly what TIES is. The nature of the beast seems to be ever-changing and McGarty & Co. are not that keen on providing hard facts and figures to back up their claims. When pressed they refer to a "white paper" to be released internally in August which is supposed to answer "all the questions."

My reservations about TIES are in two general areas:

- their analysis of the videotex market and its likely evolution. (Videotex as used here refers to the full range of one-way (teletext) and two-way (online) services including information retrieval, tele-shopping, tele-banking, education, games and other entertainment applications)
- technical considerations, especially the plan to deliver video on demand and the seemingly limited capacity of the system to deal with large numbers of users.

Wither Videotex?

TIES is predicated on the assumption that the consumer will not go for videotex at its current technological level. The consumer, they assume, will not take to the text and graphics format of current videotex, even in its most advanced PLP form, but will demand (expect) full motion video. This assumption is based in large part on the assessment that tele-shopping will be the key videotex service.

Going on instincts rather than market reports (you can find bunches of reports that argue the whole videotex issue any way you want) I think they are wrong. From what I've seen of the numerous pilot and experimental services, videotex at current technological levels is likely to be a winner as soon as two things happen:

1. availability of low-cost terminals, preferably combining the function of videotex terminal and home computer
2. creation of a delivery system which is national in scope (necessary to permit economies of scale)

[I think you can see here the vast potential of Atari/AT&T cooperation in this field]

While it's unquestionably true that videotex will eventually include video on demand, it is likely to come as a result of an evolutionary path beginning with the relatively crude line drawings available today, going through still photographs and ending up with full-motion video on demand. My guess however is that video on demand will not become a universal feature until it is practical to use digital video.

Several of the major publishing/communications companies have launched impressive videotex trials. These include Time Inc., Times-Mirror and the two AT&T joint ventures with Knight Ridder and CBS. I would say they are well on their way to developing a marketable range of services. According to McGarty, TIES won't have a full scale pilot for two years, which will put them way behind. I realize the intention is to leap frog the current technology and end up ahead, but in fact they are likely to expend their greatest effort trying to make video on demand work rather than tackling fundamentally more important questions such as the content of the services and the nature of the interface. In this light it is significant that when I asked McGarty about the interface they were designing for TIES he indicated they hadn't done much thinking about it at all and didn't really see it as an important question. The seriousness of this problem was emphasized when they showed me a videotape simulation of TIES to be used in market research. On the one hand you have a supposedly

advanced technological systems providing living color with the most outdated 15 year-old menu driven indexing etc. There does not seem to have been any where near enough thought given to what makes videotex a unique medium and off of that how to integrate the various components to make a system the consumer will appreciate.

### Technical Considerations

The plans to deliver video on demand using videodisc players at the head end seems cumbersome at best and hopelessly unworkable at worst. Aside from the fact that there is something inherently inelegant about the idea of stringing 100's perhaps 1000's of videodisc players together, I think they are vastly underestimating the capacity necessary to deal with the system they are creating. (Again, we will have to wait for the "white paper" to see all the facts and figures)

Basically, for video on demand to work the way they are planning, the only way to ensure sufficient capacity (ie. so that there is no significant waiting time) you either have to make the service either prohibitively expensive or fundamentally uninteresting. When I asked what happens if it turns out that people really loved using the system and the usage consequently is much greater than expected, the answer was that they will charge for the privilege of browsing. In other words, if it turns out that people are spending too much time browsing in the Penney video catalog, TIES will charge customers for the privilege. (The analogy to the phone company's charge for directory assistance was made) This sounds lame to me. I suppose it's possible to educate the consumer to the idea of paying for catalog browsing, but it seems cockeyed to go in with that sort of solution to what is essentially a technical problem.

One other technical point. To deliver video on demand with present technology requires that the delivery be via cable tv. Over the next 5 to 10 years this would severely limit your customers to those with two-way cable systems meeting certain technical specifications. (QUBE as presently configured could not be used for TIES as presently conceived.) It seems premature to set up a service which can only be delivered via cable TV - at least from Atari's point of view. Admittedly the service could be made available via telephone, without video on demand, but that would negate the heart of the system and present another set of problems.

[While we're on the subject, I was really quite surprised when I visited QUBE to learn how primitive the existing system is in terms of two-way capability and even more surprised to find that there are no serious tests or

experiments going on to figure out how to provide greater two-way capability. QUBE is regarded as pathbreaking but in the absence of significant ongoing developmental work to build on what exists, QUBE will rapidly lose its lead position. Put another way, while QUBE is flashy and did a great job of winning franchises for WAMEX, there may not be much technical depth to the operation and without substantial work to expand the two-way capability the situation may soon be akin to the emperor's clothes.]

Clearly I think Atari should consider the TIES situation very carefully. However I think this has to be taken up in terms of the bigger question of videotex in general and further that videotex must be considered as broadly as possible. \*\*\*\*\* One important point that is becoming clearer to me is that lurking behind the rather trivial questions that dominate a lot of the discussions about videotex are some very fundamental BIG questions such as Which companies are going to distribute Which services to Whom in What Manner. Videotex is not some peripheral medium; it is right at the heart of electronic publishing, and having the right answers to these questions will help determine who will make it big in electronic publishing and who won't.

When considering TIES and Videotex Atari should take up at least the following:

- the type of terminal/decoders required and the short term possibility of configuring the Atari 400/800 as a PLP/Telidon compatible terminal
- the method of delivery of videotex services; particularly a sharp sense of the potential role of the cable cos. and AT&T
- the kind of system software and interface needed to make using a videotex service easy, efficient and where possible, fun.
- publishing opportunities, including games, the encyclopedia, education, other entertainment forms etc.