Foreword for Alan Newell’s

Design and the Digital Divide

By Ben Shneiderman, Draft June 9, 2011

Creativity researchers have found that persistence pays off and that fresh perspectives yield insights. Alan Newell’s 40-year professional career confirms these findings, and in addition makes a few other compelling claims. Readers of his thoughtful and compelling historical review will also learn about some further claims about creativity, such as: empathy triggers innovations and theater changes minds. I was charmed by these claims, which were embedded in Newell’s anecdote-filled history of his contributions.

Professional memoirs are valuable, not only to those whose work is mentioned and those whose research is aligned with the author’s, but also as a guide to young researchers in related fields. The lessons of a lifetime are a precious gift to readers who are trying to decide about careers, choose research domains, or respond to their passions about a specific project. Reading about how Newell came to be the champion for disabled, older, and extraordinary users of technology should give strong encouragement for those who are worried about blazing their own trail.

The encouragement to “take a fresh perspective” is easy to give, but harder to put to work in a meaningful way. Newell’s examples repeatedly show readers how to open their eyes and look at problems in fresh ways. The historic photos of early innovations are important historical records, which help readers see how new ideas developed. But getting new ideas is only the starting point in developing a successful innovation.

Newell reminds readers that “unless there is significant opposition to an idea it cannot be radical enough to have the potential to make substantial improvement.” This wise advice should propel young researchers to fly into the wind, because that is the best way to gain altitude. But there is more to research success than being bold. Newell supports the common belief that teamwork is a catalyst for success, but he cautions that teams must have certain components or properties:

* Engineers with empathy, insight and imagination,
* Clinicians and other relevant disciplines,
* An understanding of the lives of the people for whom one is designing
* An appropriate research methodology
* A knowledge of the literature, and an awareness of current commercially available devices,
* A healthy skepticism of current practice.
* Ample time thinking what they want to achieve than how they are going to achieve it

Newell’s ethics are infused with human aspirations and personal connections. He believes that researchers should “have frequent contact with potential users not only as ‘experimental subjects’ but also as people and colleagues, to improve empathy and the intuitive skills of the researcher.” Here again Newell evokes empathy as a key ingredient for success, but how many students are taught its many flavors and satisfactions in their academic training?

I’ve come away from reading this book with fresh perspectives about research, clarity about teamwork, and reminders about persistence. Newell’s writings and his life work defined and legitimized research on extraordinary users, producing plentiful benefits for all technology users. He deserves ample recognition for catalyzing innovative research, initiating academic courses, and launching valuable products. I hope readers will experience the same warm feelings I have of respect and appreciation for my delightfully creative colleague.