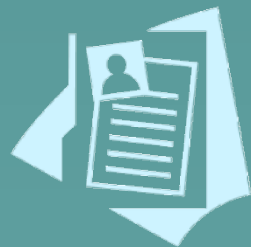
Someplace Between Dreams and Potential

Anthony P. Glascock, Ph.D.
Drexel University, Philadelphia, USA

Research in Somalia

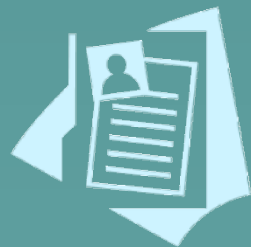
It Started with a Question in 1993

- My Mother's Medication
  - Difficult phone call
  - No certainty at end of call
- Question to Colleague
  - Can I use my computer to see if my mother took med
  - No, too complicated
  - 24 hours later, yes we can do it



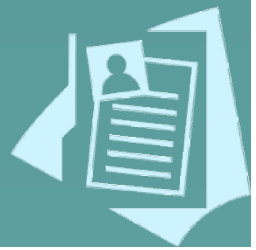
Everyday Living Monitoring System

- Motion Sensors
- Base Station
- External Computer
- Trend Analysis
  - Wake-up
  - Meal preparation
  - Medication adherence
  - Falls in bathroom
  - General activity level



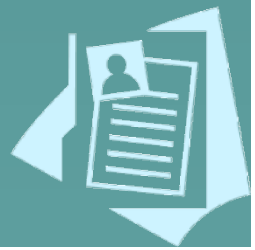
Gerotech

- Company Formed
- Obtained Funding from University
- Applied for a Patent (1994)
- Built Proof-of-Concept
  - Installed in our homes and homes of friends
  - Installed the system in ADL Suite



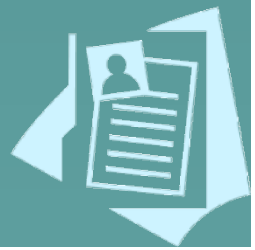
Problems with University

- Patent Application Rejected in 1996
- University Stopped Pursuing Patent
- Not Successful in Obtaining External Funding
- Negotiated Ownership of the Patent



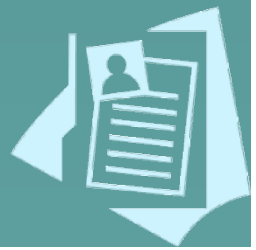
Working Outside the University

- First Patent Issued in 1998
- Lack of Money Became Real Problem
- Two of Us Bought out Other Partners



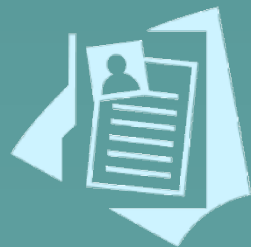
Dotcom Bubble

- We Developed VirtuCare in 1999
  - Used internet to transfer data and information
  - Was viewed as a dotcom play
- Contacted by Major Dotcom Company
  - Promised much money
  - Turned out to be a complete disaster
- Hired Investment Bankers



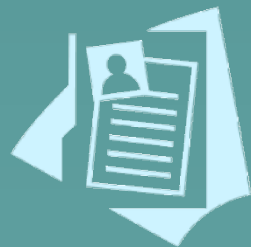
Honeywell

- Investment Bankers Developed Business Plan
- Honeywell Responded
  - ILSA Project
  - We licensed our patent and obtained a consulting contract [2000]
- Didn’t Work Out, Broke Contract in 2001



Venture Capital

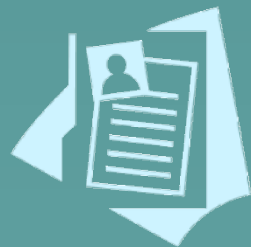
- Swore Never Work with Venture Capital
  - By 2001, we had no other options
- Living Independently, Inc. [LIG]
  - License agreement and consulting contract
  - Stock and stock options
  - Seat on the Board of Directors



QuietCare System

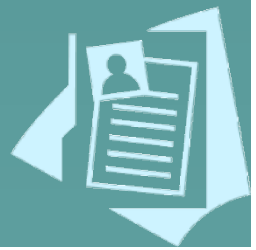
Working with LIG

- Very Frustrating
  - Almost $40 million spent
  - Business did not take-off
- Worked on 14 Pilot Studies
  - Mixed results
  - QuietCare did everything we wanted it to do



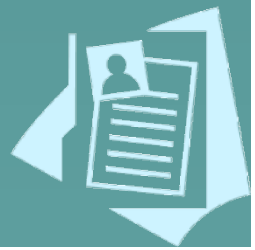
General Electric

- General Electric Was Working on Similar System
  - Our patents hindered their development
  - Invested in LIG in 2006
- In 2009 GE Bought the Remnants of LIG
  - We sold our seven patents to LIG
  - We moved on to other endeavors—HCIS



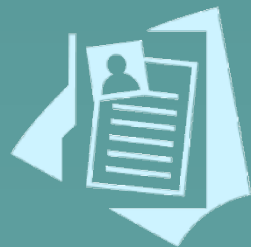
At the Beginning

- I Was Part of the First Wave
  - In 1994 few people working on technology in health care
  - Mostly engineers and computer scientists
  - Some physicians, but not in actual development
  - Almost no other social scientists



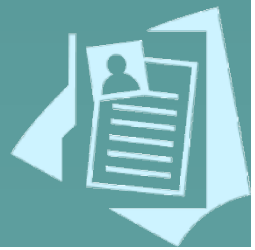
The Promise Industry

- Promises
  - Revolutionize how health care is delivered
  - Reduce costs
  - Provide better care
  - Increase efficiencies
  - Make people safer
- Everyone Made Them



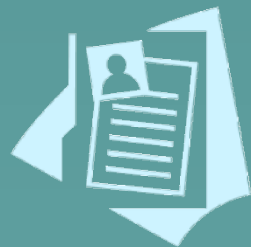
No Revolution

- Rapid Transformative Change Has Not Occurred
  - Instead change has been slow and incremental
  - Many aspects of care delivery have been impacted
- Hasn’t Stopped the Promise Industry
  - Electronic health records
  - Various Apps



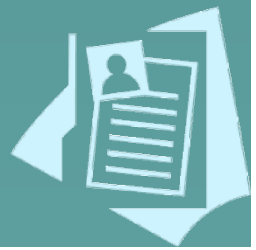
Hard Lessons

- I Have Made Every Mistake Imaginable
  - In thinking that development would be easy
  - While working with the university
  - When trying to change a major corporation
  - In estimating the amount of money needed
  - When applying the pilot study model
- I Have Learned from These Mistakes



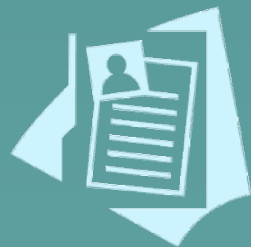
Lesson 1:
It's Really All About Money

- I Had No Idea How Much Money was Needed
  - Dotcom
  - Honeywell
  - LIG
- You Never Have Enough Money
- It's Harder to Obtain than You Think



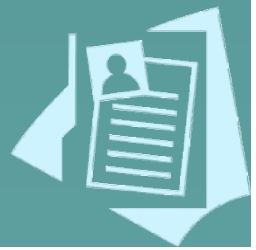
Lesson 2:
What You Spend It on is Key

- Spending it to Keep a Lab Running is Unwise
  - Get out of the lab as quickly as possible
  - Nothing can be demonstrated in a lab
- Avoid Spending Money on Tests of Technology
  - Test how the technology is used in care delivery
  - Keep away from pilot studies
- Spend Money on Management



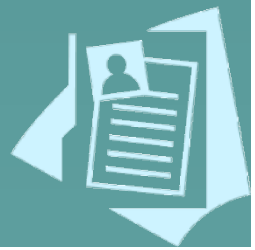
Lesson 3:
Sustainability is the Measure of Success

- Technology Must Work
  - Does not ensure success
  - Scattered adoptions do not ensure success
- Sustainability Only Occurs Over Time
  - Must have a viable financial model
  - Must be able to alter how people do their jobs
  - Must be fully integrated into care model



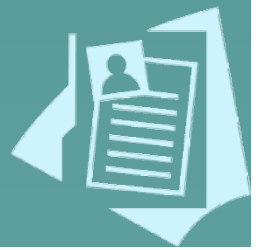
Lesson 4:
People Must be the Focus

- People Receive Care
  - They must be receptive to the technology
  - They must be willing to pay for it
- People Provide the Care
  - Must change how they do their jobs
  - Some jobs will be lost
  - New jobs will be created



Regrets, I Have a Few, but Too Few to Mention

- That First Question Altered My Career
  - Went from being a prominent anthropologist to
    - A below average engineer
    - A mediocre computer scientist
    - A fairly successful business person
- However, the Journey Has Never Been Dull
- Still Working in Field



No Promises

- No Utopian Vision, but Some Conclusions
  - It is not revolution
  - Increasing use of technology in health care is inevitable
- Every Other Industry Has Been Transformed by Technology
  - Health care will not be an exception
  - It will take longer than anticipated
  - It will be harder than anticipated
  - It will happen