

# **Jekyll and Hyde Life of the Entrepreneur Professor**

**Hussein (a.k.a. Jekyll) Alnuweiri  
Electrical Engineering  
Texas A&M University at Qatar**

# Short Story

- **Mid 1998:** company concept starts developing (dream stage)
- **January 2000:** UB Video Inc. Founded by Alnuweiri & Kossentini
  - **Timing:** Around end of Internet bubble; stock market crash started in March 2000
  - **Initial team:** four engineers, CEO, CTO
  - **Initial Capital:** \$100,000 from founders
- **2002:** Texas Instruments invests \$1.5M for 18% of shares
- **2005:** Major Customers
  - Scientific Atlanta, Sony, Texas Instruments, Tandberg, Polycom, Lifesize, Qualcomm, ... + 10 others
- **2006:** Company was acquired by Scientific Atlanta (now a Cisco Company)



**Initial IP**  
**Fast Encoding**  
**H.263+, H.263++, H.264**

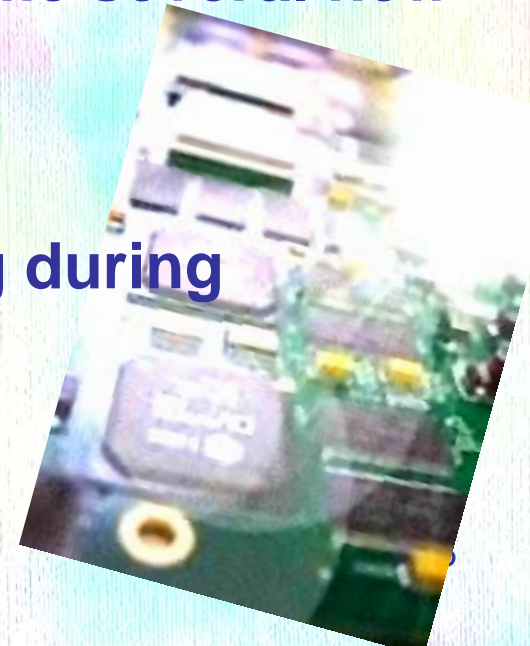
**Later IP**  
**High "subjective" visual quality**

# UB Video Technology



# Market Drivers

- **MPEG-2 encoding done in hardware only**
  - Expensive, multi-chip boards to do hardware compression
  - Modification, adding features was not possible
  - Especially bad since around that time several new standards were emerging
    - H.263, H.263+, H.263++, MPEG-4 ...
  - Software case becomes compelling during evolving standards and/or services



# Beginnings

- **1996: Project with Rogers Communications (Cable TV company)**
  - **Replace clunky hardware video encoders with nimble software encoders**
    - Develop software techniques for real-time video compression -- Target: MPEG-2 digital video
  - **Advantages**
    - Substantial cost saving: Changes to standards or services require only software upgrades
    - Faster response to market requirements
- **1998: we demo near real-time encoding on a common PC! (10 frames/sec )**

# Startup Phase

- **1999: HMA takes sabbatical leave**
  - Pursues start up establishment
  - Tech market is hot but VC's are distracted by many startup ideas
    - Startup seemed pegged to a single product (H.263 video)
    - License-based business model was not exciting to VCs
    - UB video was thin on experienced management
  - End of 1999, we agree with a local “non-tech” VC to IPO on the VSE (Vancouver Stock Exchange)
- **January 3, 2000: company officially registered, but ...**
  - deal with VC falls through
  - Founders decide to personally fund the company

- **Other development**
  - **C-cube was acquired by LSI in 2000**
  - **Two students on initial project split and start their own video company**
    - **LSI also acquires their company in 2003**
  - **ATI acquires a few of our engineers after months or negotiating business**

# Your University – Your company

- **Jekyll and Hyde effect comes into play**
  - **Jekyll:** I am university professor,
    - I should increase value of IP developed in my lab,
    - Increase benefit to university (and my lab, grad students, etc.)
  - **Hyde:** This is my company
    - don't want company to over pay for IP which may not generate acceptable revenues

# Solutions

- **Many successful models**
  - University owns equity in company based on value of assigned IP
  - University gets cash for IP
  - University retains IP and licenses it to Company ( !! )
- **How to value university IP?**
  - 3<sup>rd</sup> party evaluation
  - Can be complex, many parameters
    - Relative importance of IP to products or licenses
    - Company capitalization
    - Quality of management and marketing teams

# Professor – Entrepreneur !

- **Challenges at University**
  - **Fighting “perceived” conflict of interest issues**
    - Reduced research output (over-occupied by company)
    - Overlapping university research with company R&D
    - Turning down collaboration with competitor industries
    - Taking on collaborations with potential customers
- **Challenges at Company**
  - **How to manage and maintain control, While university is your first job?**

# Survival Guide

- **Remove causes of conflict of interest**
  - Separate company research from university research
  - Report to university any results or patents
  - Account for your time, resource usage
- **Run your company as a business, not a research lab**
  - Work on raising money, finding customers, recruiting personnel
- **Have a strategy to handle pressure**
  - Exercise regularly
  - Do not complain about too much work!
  - Work late at night when family are asleep
  - Send wife away on long vacations

# Thank You

