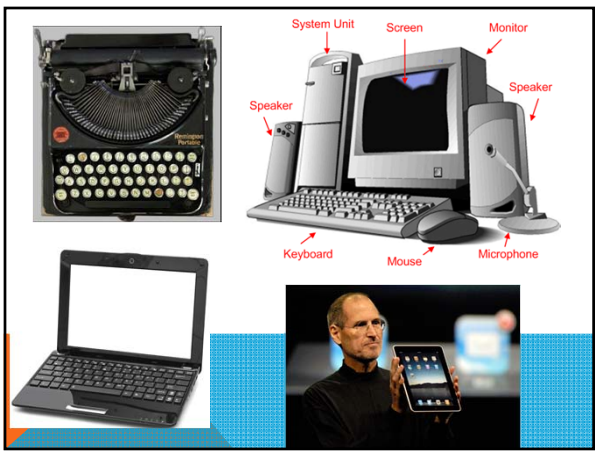

THE DIGITAL AGE…


UX-Pro 90
TCSportzone


System Unit
Screen
Monitor
Speaker
Speaker
Keyboard
Mouse
Microphone

LEST YOU THINK I'M TAKING YOU ON A WILD RIDE....

- Technology does NOT have all the answers.
- Technology doesn't always improve things in life.
- Technology doesn't always solve everything.
- Technology is merely a tool.
- Just as a Stradivarius cannot be duplicated or replicated a pipe organ likewise cannot ever be duplicated.
- The purpose of this presentation is to expose you to the emerging technologies for organists in a digital age.

Examining the starting point...

- Understanding
- Perspective
- Context – Paradigm Shift

US vs. THEM

- Religious
- Political
- Musical

EXAMINE THE FACTS…

- Pipe organs have and will always be the preferred instrument of choice for churches and concert halls.
- Historical and cultural tradition in America.
- The reality of finances and the greater good.
- Digital technology provides viable and practical options for the organ builder and organist.
- Praise bands replace organs and what some consider traditional music praxis.
- Pianos in churches replace the organ when the cost of organ maintenance becomes difficult and impossible to sustain.

THE APPROPRIATE QUESTIONS TO ASK OURSELVES…

1. With trends in worship styles will future generations of musicians and church goers be deprived of the magnificence and experience of hearing and playing organ music?
2. Are some purists willing to forgo any organ instrument if they cannot have the ideal of a pipe organ?
3. How do we frame the conversation with the church leadership and church community and communities at large? "We support what we value"
4. Are we aware of the emerging technologies that compliment the pipe organ?
5. Are we willing to journey toward understanding the technologies available?

PIPE ORGAN TECHNOLOGIES

The Organ of Bach's Time

- The most famous of these organ builders was Gottfried Silbermann. He was born the son of a carpenter in the mountainous backwoods of Saxony in 1683, gained an almost monopolistic grip on keyboard manufacturing in the region and died a rich man in 1753.
- Nearly thirty of his fifty Saxon organs survive, some very nearly in original condition. They are famous for their distinctive sounds, from the silver flutes to the strong and characterful 16' Posaune in the pedal.
- Other organ builders include Zacharias Hildebrandt (1688–1757), an apprentice and later a rival of Silbermann, and Heinrich Gottfried Trost (c.1680–1759).
- All had some sort of collaborative or critical relationship with JS Bach.

The Organ during the Classical and Romantic periods – More symphonic

The 20th Century Pipe Organ – Theater organs-silent movies

1. How did the technologies change?
   - ❑Key Action
   - ❑Combination action
   - ❑Enclosure and expression pedals
   - ❑Console design
   - ❑Stops + Couplers
   - ❑Wind system
   - ❑Computer back up of combinations
   - ❑Midi expansion – allows pipe organs to achieve even more purposes
2. How were these new instruments and technologies embraced by composers and performers?
3. Composers always explore new ideas and new technologies that have widened the scope of their creative genius.

TERMS TO KNOW AND TO UNDERSTAND

- Digitally Sampled Sounds
- Midi
- Sound Modules
- Organ companies that utilize these technology options

DIGITALLY SAMPLED SOUNDS

1. The difference between Digital and Electronic sounds
2. Digitally sampled sounds are extremely high quality audio recordings of the actual pipes from every rank of the pipe organ.
3. Highly advanced computer software analyzes these sounds the software engineer creates based on tonal and acoustical data -referred to as DIGITAL RANKS.
4. The tonal architecture of digital sounds give the organ builder and performer a broad range of adapting the sound to the room/building.

M.I.D.I. = MUSICAL INSTRUMENT DIGITAL INTERFACE

- MIDI is the computer 'language' used to send and receive information between two electronic devices which create or record music.
- A simple gateway to process digital sounds or midi sounds from a module into an instrument that serves as the CONTROLLER. Allows devices to communicate with each other through standard commands. Like a spread sheet of information.
- 128 sounds possible in each General Midi bank.
- Compare General Midi and computers. Compatibility
- A set of digital information is processed through the module and relayed to the instrument.
- Through filters, all sound elements can be controlled by the performer.

SOUND MODULE

- A sound module contains computer created data/information about digital sounds that have been pre-recorded.
- It gives the performer great control over elements such as
  - Volume-velocity
  - Panning
  - Reverb
  - Transposition

ADVANTAGES OF USING DIGITAL MEDIA

- Palette of sound options are unlimited.
- Digital versions of the actual pipe sounds used and heard by the composers.
- Recording and playback of rehearsals/performances.
- Seamless integration with pipe ranks.
- Automatic tuning adjustments to pipes.
- User flexibility – orchestral/pipe/digital can be used simultaneously.
- Affordable expansions of organs.
- These options add versatility to an organ, but I don't believe they violate the true nature of the instrument.

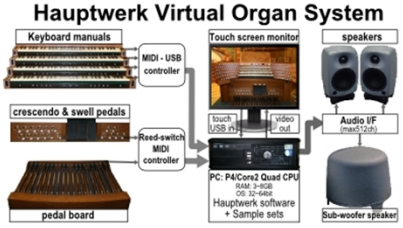
ORGAN COMPANIES IN THE FOREFRONT OF THE DIGITAL TECHNOLOGIES

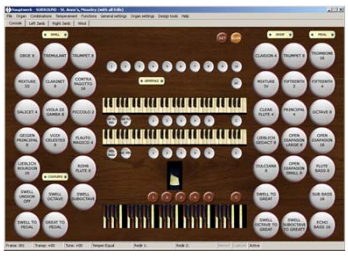
Before I list the leading companies dealing with church organ design, I want to tell you about Hauptwerk Organs.

Totally computer based and computer driven.

- Cavaillé-Coll organ sounds sampled
- Major Cathedral organs around the world sampled
- Early instruments sampled

Hauptwerk Virtual Organ System





Listen to audio demonstrations on www.YOUTUBE.com

ORGAN COMPANIES IN THE FOREFRONT OF THE DIGITAL TECHNOLOGIES

- Rodgers [owns Roland Company] Midi-Digital-Auto-tunes digital to pipes. ABOUT HYBRID ORGAN CONSOLES
- Allen [Pennsylvania. Started the digital technology decades before others. 80K installations worldwide]
- Walker Technical [Around since 1973. Specializes in high end digital speaker technology available to electronic organ companies- Wicks-Zimmer]
- Johannes [Dutch company-Real Time Sampling…]
- Ahlborn Galanti ["The Electronic organ for pipe organ people" – Illinois]
- Roland Classic [Scaled down version of the Rodgers Organ. 2-3 manual organs, midi, MX-200, sound architecture etc.]

RODGERS

ALLEN

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JOHANNUS

AHLBORN GALANTI

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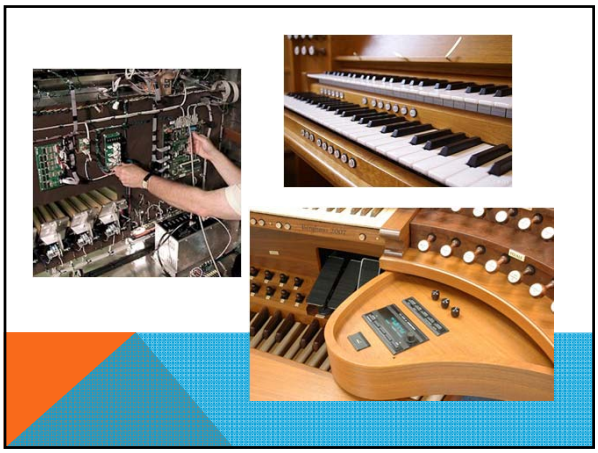
EPILOGUE

- Religion, economics, war, and numerous cultural fads have influenced the role of the organ over the last four centuries.
- The organ retains power, because of its personality–its size, permanence, volume, and variety of sound–to impress the performer and listener in unique and indescribable ways.
- The organ remains a monument to the triumph of human skill and culture: an intersection between science, art, and craftsmanship, an ever-changing bridge between past and present.
- Through enthusiastic communication and programs about the organ's potential, both in sacred and secular settings, the organ could regain an even more prominent role in American society.

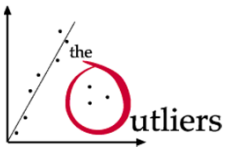


THERE IS ROOM FOR ALL IN THE CONVERSATION…

- All idea people

- All divergent thinkers

- All outliers



- All cynics

- All innovators

- All cronies

IN A COW TOWN?

Brenda quiets the crowd for her Prelude

THE DIGITAL AGE…

THE DIGITAL REVOLUTION

INNOVATE, CAPTIVATE, COLLABORATE…