



VirtuosoMedia
secure digital rights management

Influencing Consumer & Creator behavior

To CopyRight or to CopyWrong?

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Introduction VirtuosoMedia

- Offline professional multimedia protection for “Bouwbox Digitaal”
- Online music solution with “VirTunes”
 - We keep track of the tracks
- Online video solution with “Vir2go”
- Set-top box solution with “Virtiq Technology”
 - Key to paid content





Agenda

- Prof Christensens Disruptive Technologies
 - Applied to the Music Industry
- Marketing Virtual Goods & DRM role
- Industry Technological Developments
- Observations & Conclusions
- Explanation & Demonstration VirtiQ



Prof Clayton Christensen

Harvard Business School

- Specialised in Technological Innovation Management
- Noticed that well managed firms:
 - strengthen their market positions by developing technological innovations based on their established products: called “sustaining technologies”
 - failed, when facing the challenges of another kind of innovations, which he called “disruptive technologies”



Disruptive Technology

- Is a new product or service that isn't as good as your current product line.
- Doesn't appeal to your best customers.
- Is something smaller, simpler & cheaper
- May not be recognised at first glance.
- Is *NOT* a tremendous technology step-change



An example: The microprocessor

- Intel saw that an earlier microprocessors couldn't do what a wired circuit board in a minicomputer or mainframe could do.
- So they started with fitting a calculators and later the personal computer. Since then, the microprocessor has come up-market and disrupted the minicomputer, and then the mainframe.



Prof. Christensens “Innovators dilemma”

- The dilemma is
 - if they don't keep focus all their energy on **upgrading(*)** their product line they'll fail.
 - But if they don't develop the new business they'll fail too.
- The solution is to set up a different company with a different focus



Music Industry

- Mp3 format + internet is a disruptive technology combination
- Apply Christensens theory:
 - Add value to existing product
 - Setup a new business model / company.
 - What about sueing music fans?
- Without royalties to artists, the current situation is unsustainable.
 - They love DRM! © VirtuosoMedia How to sell that?



Marketing Factors

4 P's

- Marketing traditional goods
 - Product, Price, Place & Promotion
- Marketing virtual goods
 - (Virtual) Product & Price,
 - Promotion
 - Place of transaction (Payment Portal)



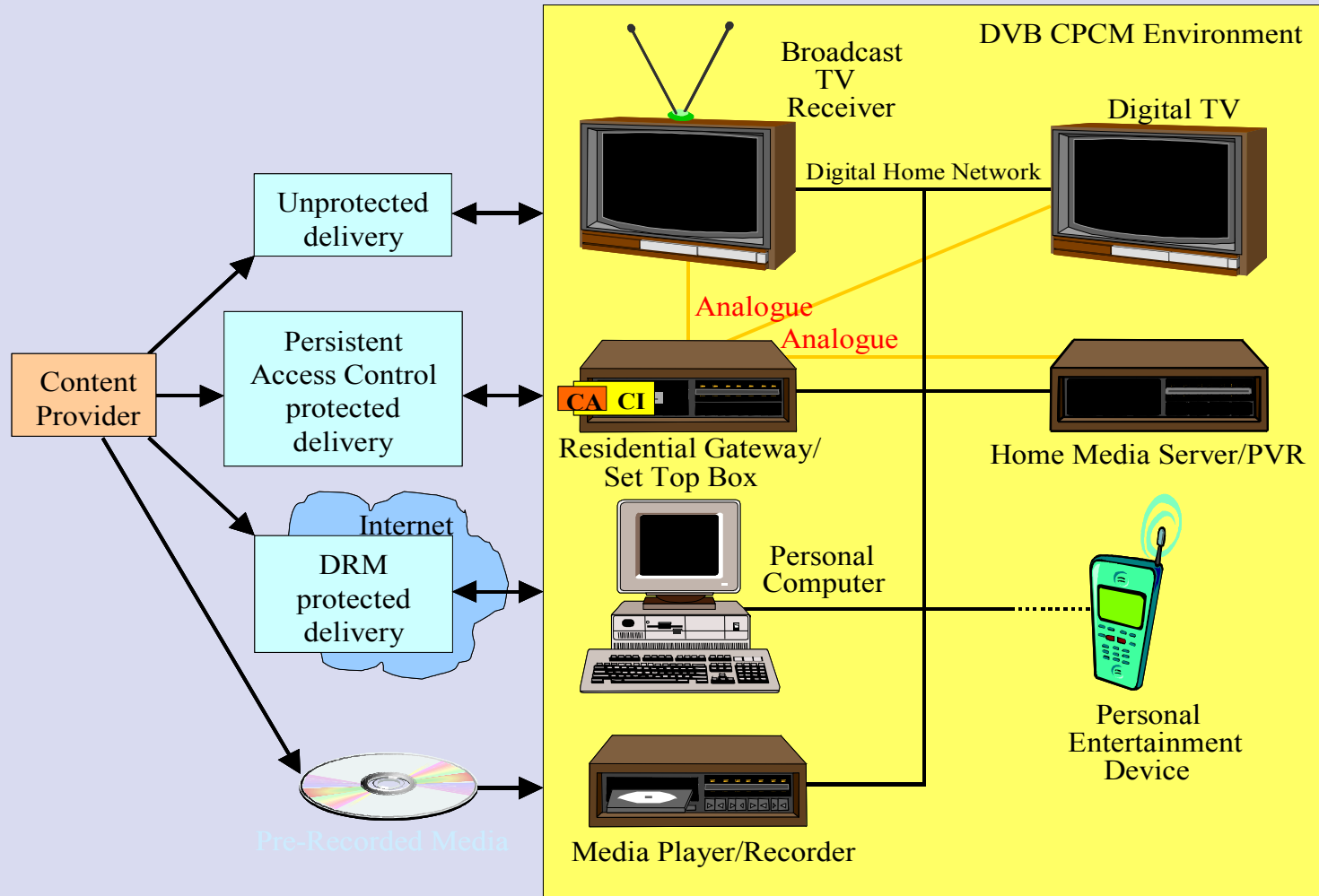
A role for DRM?

- With DRM 'new products' can be created based on the same content: product differentiation.
- Probably: price differentiation
- The Music Industry needs to build a new customer relationship, with new products: They need to influence the consumer in the new world



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Rights Protection by DVB-CPCM





Industry Technological Developments

- Sony/Philips acquired Intertrust (nov'02)
- Microsoft is becoming friendly?
 - Submitted WM9 video (only) to SMPTE become a standard (sept '03)
 - Settled suit on DRM infringements (april '04)
- Phone companies have standardized on the OMA-2 profile (ODRL based)
- MPEG is developing a standards based DRM



Video Right Owners - beware -

- Mpeg4 / wm9 + broadband will be for the 'video' rights owners, what mp3 + internet has been for the music rights owners: disruptive technology
- Broadband is here today
- DVD writers are here today
- Digital video recorders are on their way



Many niche markets

- The pervasive interoperable content standard (format + DRM) is years away.
- Even within 'a standard' services may not be interoperable at all (see e.g. ISMA crypt 1.0 specification)
- Public sector DRM applications: Let's use non-proprietary DRM (e.g. ODRL / MPEG)



Conclusions

- Digitisation (& digital distribution) has proven to be a 'disruptive technology' for the entertainment industry.
- They need to innovate their business model, product offering & consumer relationship.
- DRM is a tool to develop new digital products; to be set in the virtual 4 P's.



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VirtiQ Technology

- Combination of
 - DRM technology of VirtuosoMedia
 - Payment technology of SyntiQ International based on SyntiQ-Pay
- SyntiQ International is
 - 100% daughter of Interpay



- SyntiQ-Pay, SyntiQ's core product, is a complete *certified* payment environment.
- Based on the powerful SyntiQ-Pay chip & fits into existing and in new payment terminals
- Very high security: ITSEC E6 high & EMV level2 certification on some applications
- Can be remotely controlled in a secure way

THE SYNTIQ-PAY MODULE

Featuring:
Java + secure OS

64k Secure Micro Controller

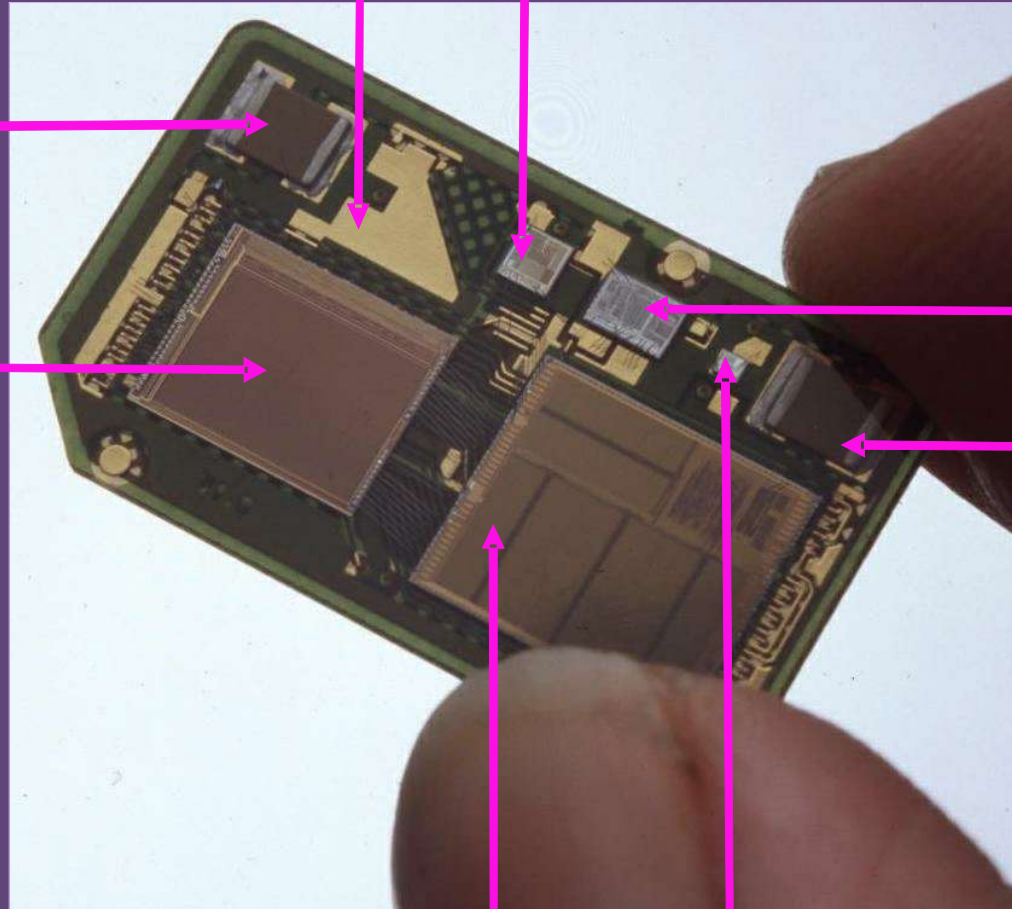
4Kb EEPROM

Capacitor

8 MB Flash

Clock Generator

Capacitor



ARM CPU 256 Kb RAM
2 x ISO 7816 port

Voltage Regulator





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VirtiQ demo

