



Augmented Reality and Music Entertainment: Then and Now

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OVERVIEW

- Relevance to music entertainment
- Music AR applications “Then”
 - What was feasible ten years ago?
- Music AR applications “Now”
 - What can be done in 2010?
- Future possibilities and challenges

TECHNOLOGY ADOPTION IN MUSIC ENTERTAINMENT

- History of early adoption by artists and labels
 - Music creation
 - Live show enhancement
 - Fan engagement
 - Marketing and promotion
- AR can address these areas
- Ten year history

MUSIC & AR THEN (CIRCA 2000)

- Low level development: C/C++, no middleware
- Expensive Hardware: SGI 02, high end PC
- Content pipeline restrictions
- Difficult to pitch: Few comparisons
- No mass market delivery platform
- Niche applications feasible

AR INTERACTIVE MUSIC INSTALLATIONS

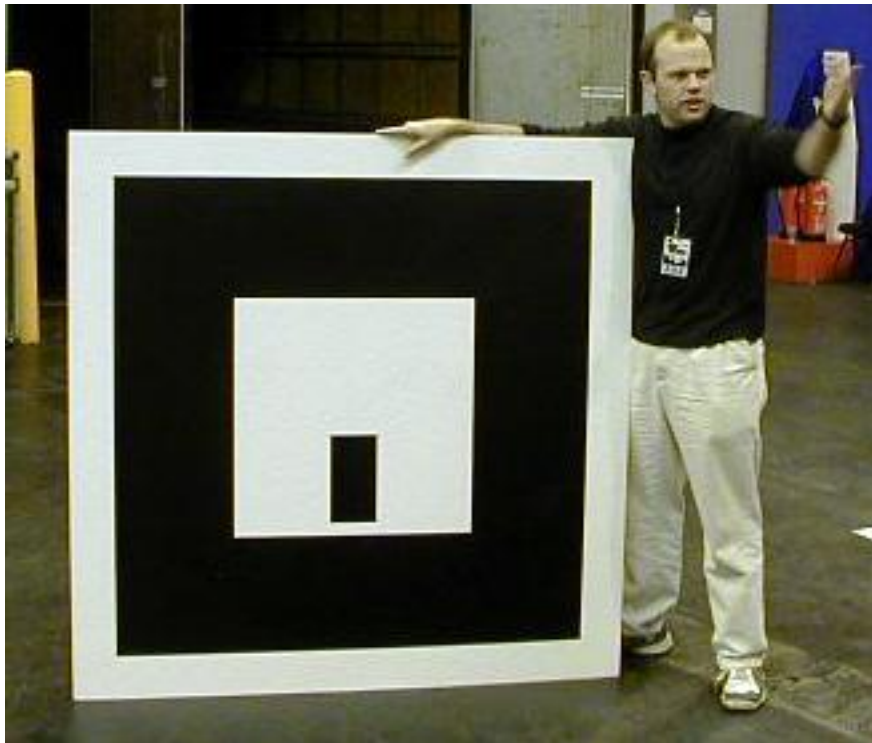
- Augmented Groove (2000) Video source: <http://modin.yuri.at/tangibles/>



- Poupyrey, I., Berry, R., Kurumisawa, J., Nakao, K. and Billingham, M. 2000. [Augmented Groove: Collaborative Jamming in Augmented Reality](#). In Proceedings of ACM SIGGRAPH 2000 Conference Abstracts and Applications, ACM Press/ACM SIGGRAPH, Computer Graphics Proceedings, Annual Conference Series, ACM, 77.

AR IN LIVE PERFORMANCE

- Duran Duran Pop Trash Tour (2000-2001)
 - AR 3D animated characters and effects appear live on stage with band
 - AR scene viewed on stage video screen
 - Used modified version of ARToolKit



AR IN LIVE PERFORMANCE

- **"Girls on Film"** Computer generated women danced on top of the crowd and interacted on stage with lead singer Simon Le Bon.



AR IN LIVE PERFORMANCE

- "Hallucinating Elvis": A computer animated Elvis was created to "shake, rattle, and roll" alongside band members



More info: www.jarrellpair.com/ddar

- J.Pair, J.Wilson, J. Chastine, M. Gandy. ["The Duran Duran Project: The Augmented Reality Toolkit in Live Performance"](#). The First IEEE International Augmented Reality Toolkit Workshop, 2002.

MUSIC & AR NOW (2010)

- Variety of development options: Flash, C/C++, Cocoa
- Easier to create 3D objects, animations, effects
- Demand in marketing, advertising, gaming
- Mass market delivery via webcam and mobile apps
- Wide spectrum of applications possible

AR WEB APPS

- Interactive Album Covers and Promo Flyers



- View at <http://devblog.lp33.tv/aralbum/>

AR WEB APPS

- Interactive Album Covers and Promo Flyers



- View at <http://devblog.lp33.tv/arconcert/>

AR WEB APPS

- John Mayer “Heartbreak” AR Music Video



- View at: <http://johnmayer.com/ar>

EXAMPLE: AR WEB APPS

- Blink 182 Doritos Campaigns



- View video [here](#)

AR WEB APPS

- AR in Live Streamed Performances



- View at: <http://devblog.lp33.tv/arconcert/>

AR WEB APPS

- AR in Live Streamed Performances



- View at <http://devblog.lp33.tv/arvideowall/>

ARTIST MOBILE APPS

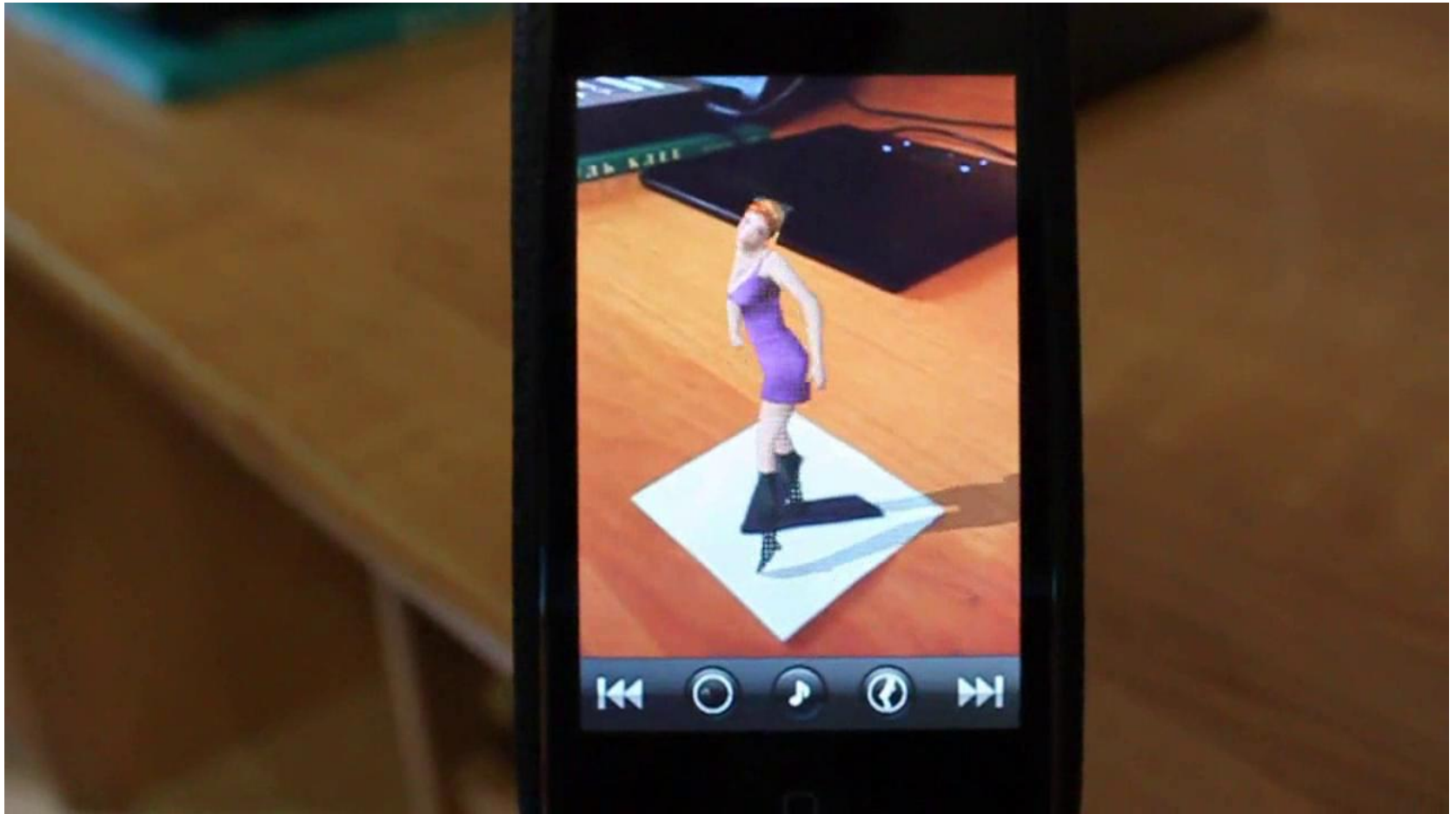
- Major artists release mobile apps: David Guetta, Lady Gaga



- AR as an app added feature

ARTIST MOBILE APPS

- AR music videos and performances



- More info: <http://apetrus.com/en/argirl/>

NEAR FUTURE

- Additional Platform Options
 - Tablets
 - Camera equipped
 - Consoles
 - Handling production value expectations
 - Improved 3D rendering and lighting
 - Wider availability of AR capable mobile devices

SUMMARY

- **Why?**
 - Music creation, compelling live shows, fan engagement, marketing, promotion
- **Then**
 - An emerging technology, interactive installations, AR in live performance
- **Now**
 - Mass market reach through webcam and mobile apps,
- **Future**
 - Tablets, consoles, more
- **Challenge**
 - Delivering entertainment value vs. novelty

QUESTIONS

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