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3D Entertainment Update

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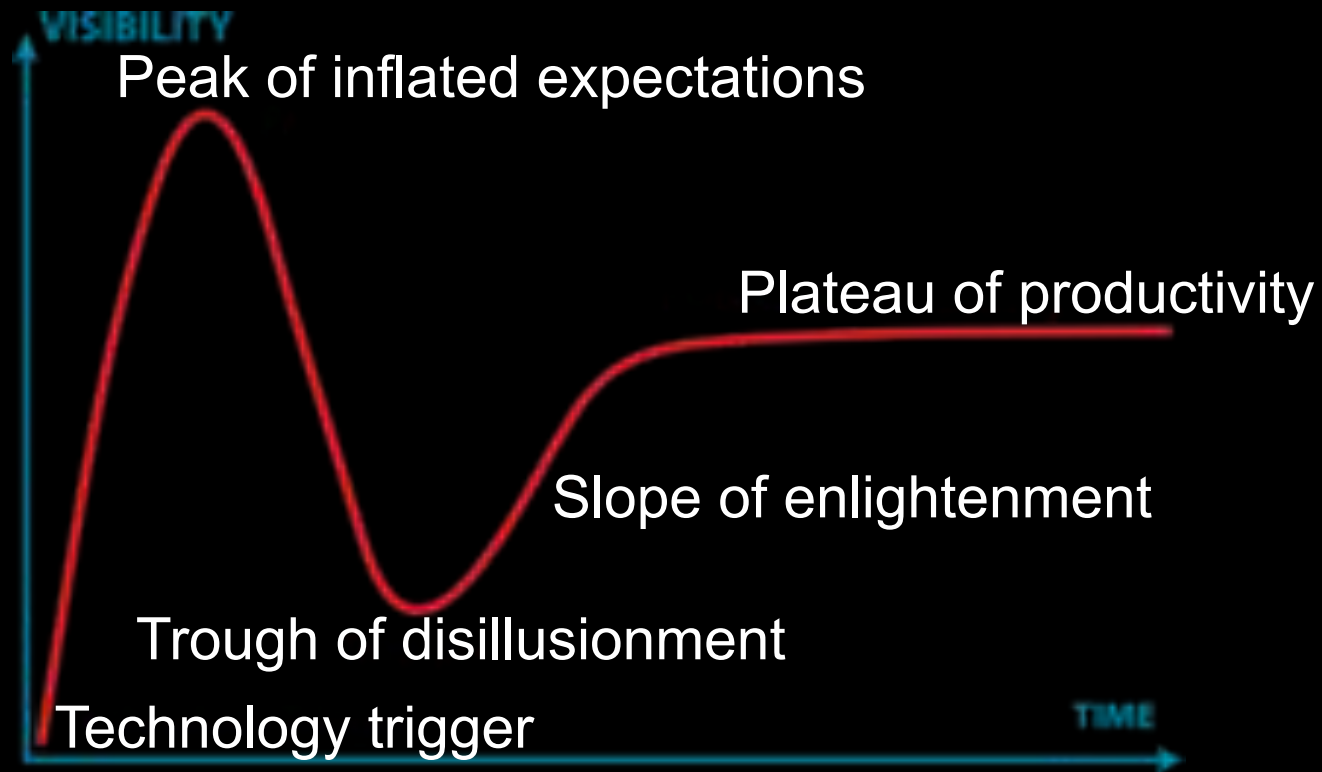
Entertainment Technology Strategy and Research Consultant
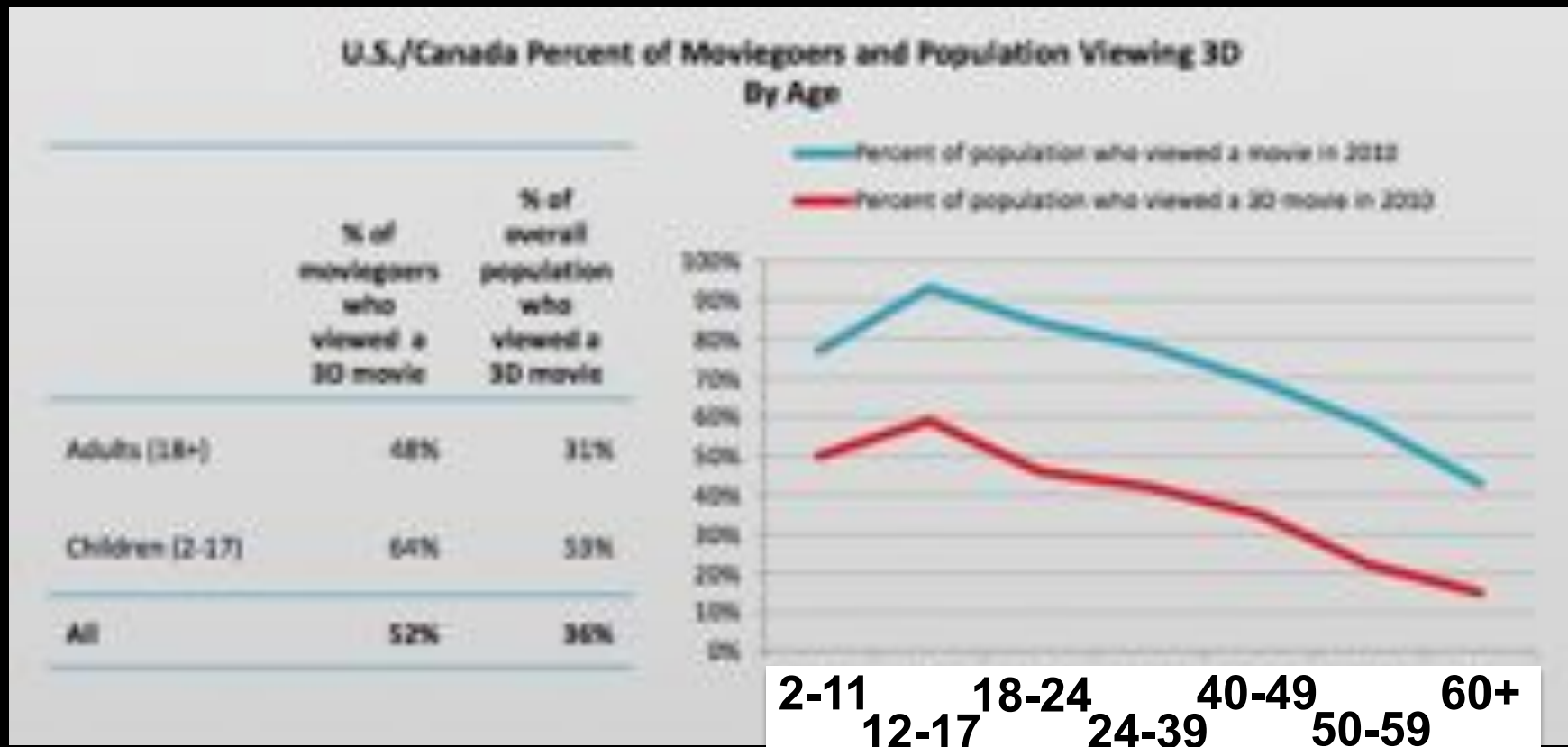
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Hype Cycle
(Gartner)

VISIBILITY

Peak of inflated expectations

Plateau of productivity

Slope of enlightenment

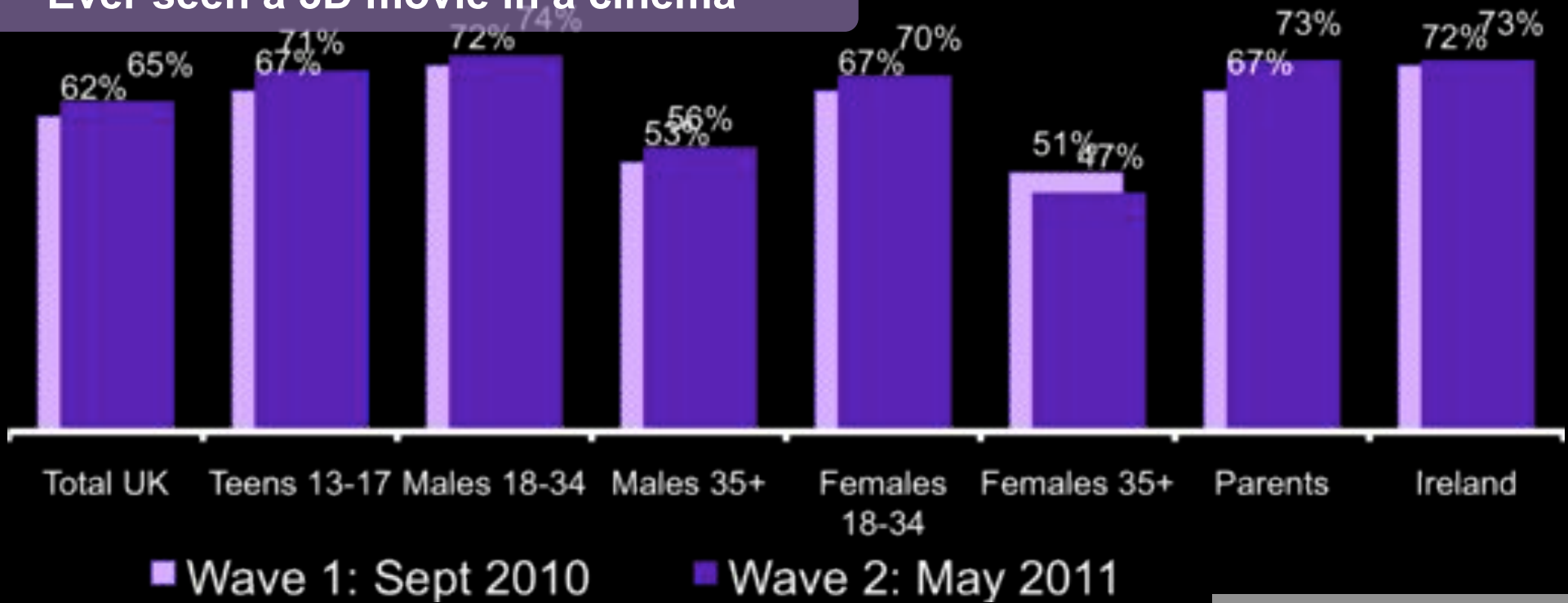Trough of disillusionment

Technology trigger

TIME

% of population by age who went to a movie in 2010 2D (blue) and 3D (red)

The 3D market may have reached saturation, with little change in audience size
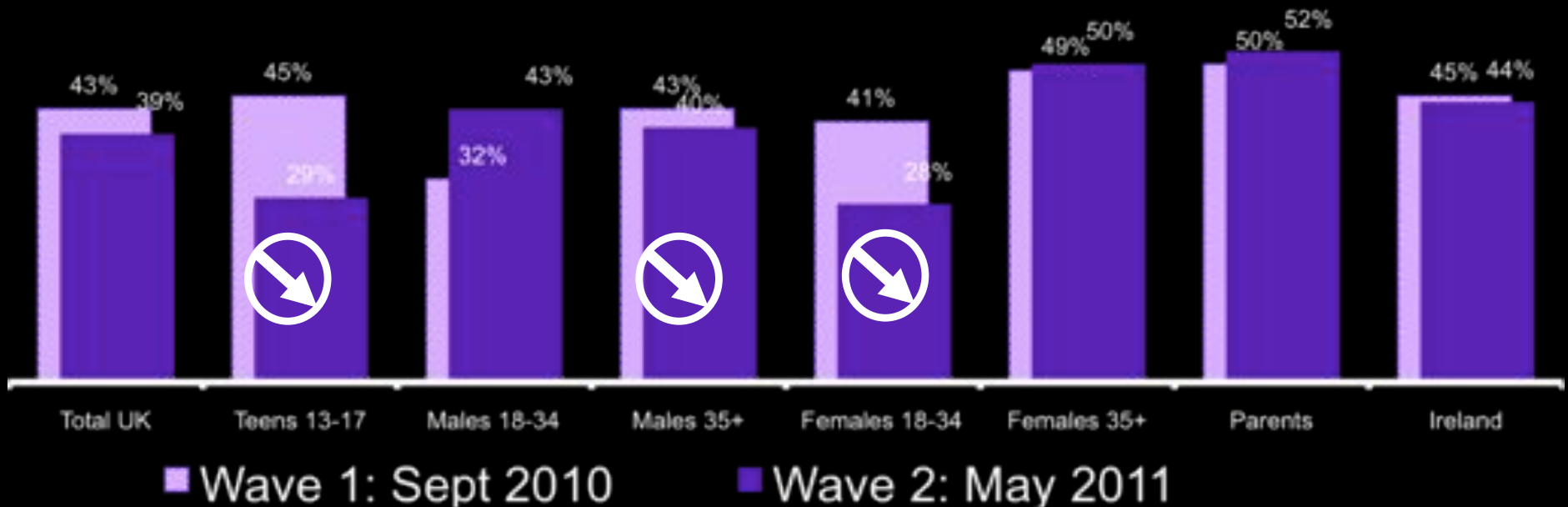
Ever seen a 3D movie in a cinema

Chart showing "Ever seen a 3D movie in a cinema" by category, comparing Wave 1: Sept 2010 and Wave 2: May 2011:

Category	Wave 1: Sept 2010	Wave 2: May 2011
Total UK	62%	65%
Teens 13-17	67%	71%
Males 18-34	72%	74%
Males 35+	53%	56%
Females 18-34	67%	70%
Females 35+	51%	47%
Parents	67%	73%
Ireland	72%	73%

■ Wave 1: Sept 2010   ■ Wave 2: May 2011

Source: Ipsos OTX MediaCT – June 17, 2011

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...the 3D experience is less positive than in October 2010

Average 'Excellent' rating for a 3D movie

Bar chart showing Wave 1: Sept 2010 vs Wave 2: May 2011 percentages:
- Total UK: 43% / 39%
- Teens 13-17: 45% / 29%
- Males 18-34: 32% / 43%
- Males 35+: 43% / 40%
- Females 18-34: 41% / 28%
- Females 35+: 49% / 50%
- Parents: 50% / 52%
- Ireland: 45% / 44%

■ Wave 1: Sept 2010   ■ Wave 2: May 2011

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Base: Total **UK** – Wave 1 (n=1,558). Wave 2 (n=1,501)

Jeffrey Katzenberg

"For 3D to truly take off, the movie industry needs to invest more in creativity and less in short-sighted money-making efforts."
Source: Fortune, 7/19/22

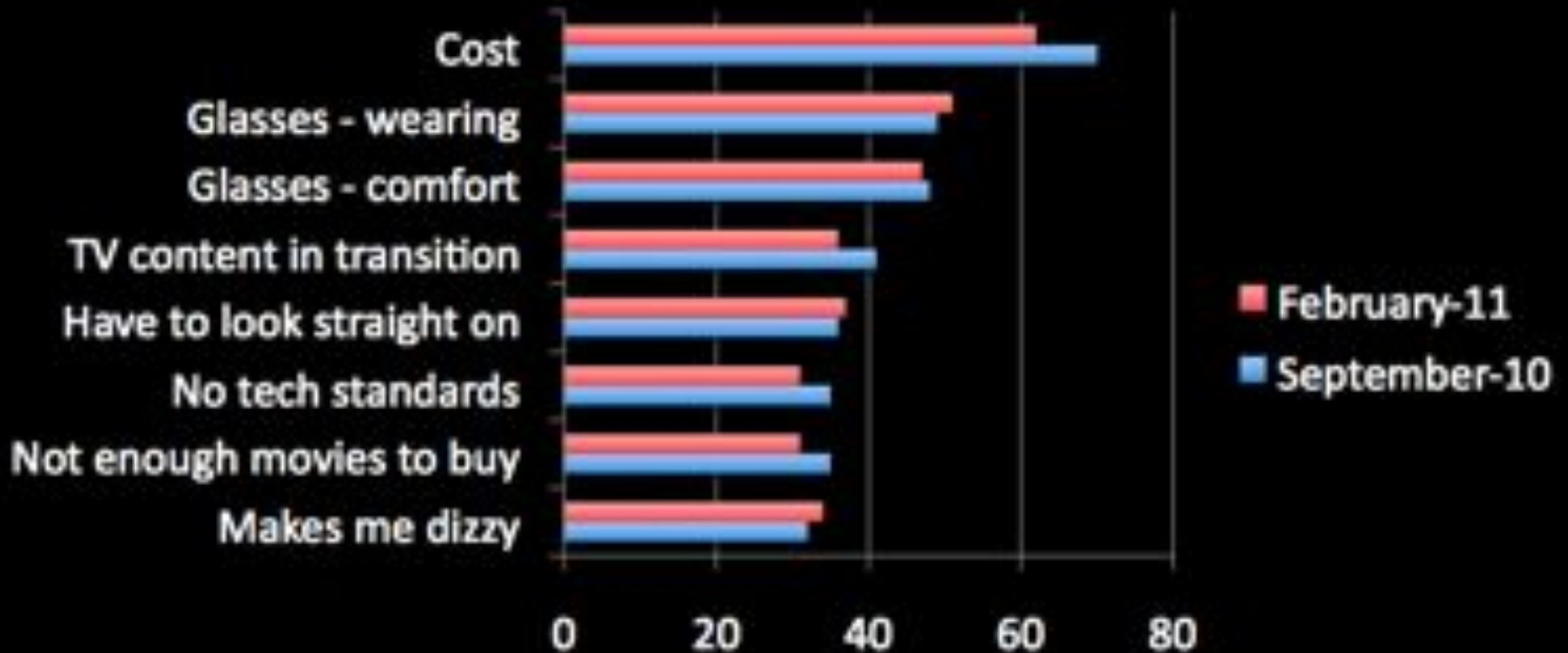"There were unfortunately a lot of people who … deliver a low-end, crappy version of [3D]"
Source: Reuters, 7/22/11
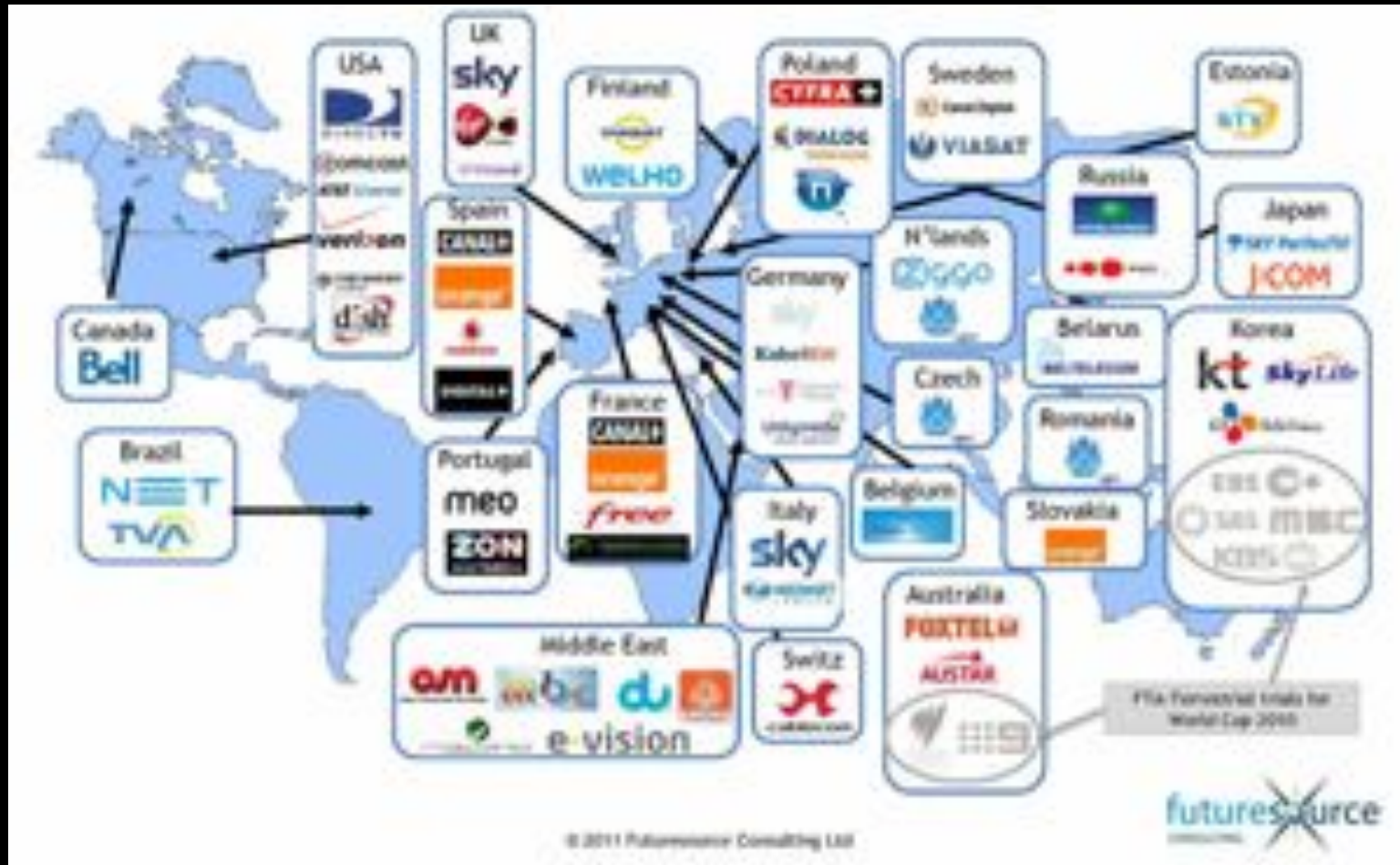
Consumer Market
3 Legs of the Stool

Movies

Sports/
Live Events

Games

Barriers to acceptance
(global Sony survey)

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60 3D Broadcasters as of August 2011

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Major 3D Theatrical Releases

Number of Major 3D Theatrical Releases Expected

10
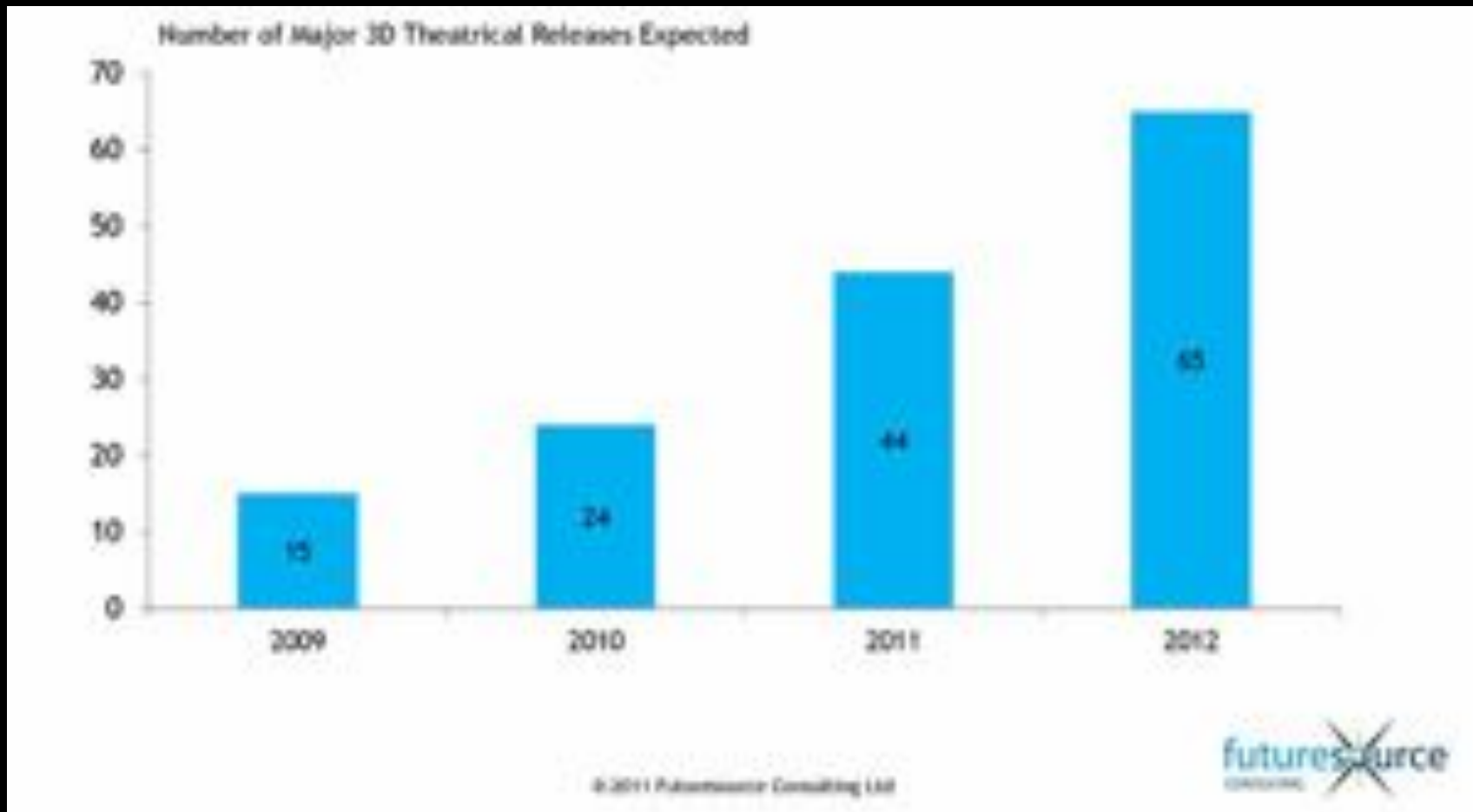
Games (the other CGI 3D)

- Adjustable S3D

- Average gamer is 37 years old
- 72% of Americans play video games
- 42% of gamers are women
- 55% play games on their phone or handheld

Source: Entertainment Software Assn. 6/11 and 7/5/11

- $5.1B spent on game content in 2010
- $25.1B spent on game content, hardware, and accessories in 2010

Active versus Passive
3D TV Display Technology Shoot-Out

Dr. Raymond M. Soneira
President, DisplayMate Technologies Corporation
Sept., 2011

Tested

- Brightness (3D v 2D)
- Flicker
- 3D resolution and sharpness
- Crosstalk and ghosting with viewing angle, position, and head tilt

Conclusion

- "Passive delivered substantially and demonstrably better all around 3D..." than Active

NO CLEAR MESSAGE

So many choices
So little time!

Pleasant buying experience comes before
a pleasant viewing experience

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Selling 3D at Retail

So many choices
So little time!

Key concerns
- Consumer & Salesforce education
  - Consistency of messaging
  - Simplify
- Compelling demo (movies, sports, games)
- Interoperability / standardization (glasses)

Autostereo 3D TVs

Some vendors
- 3D Fusion*
- Toshiba
- Exceptional 3D*

* Deploying Kiosks

Consumers don't buy technology,
they buy the experiences that
technology delivers

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Trends in **Mobile** 3D devices

Three key applications:
- **creation and sharing** of user-generated
  3D content
- **playback** of 3D content
- 3D **gaming**

(Source, ABI Research, 4/20/11)

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Autostereo 3D Phones

LG Thrill 3D
Dual 5 Megapixel
cameras

HTC EVO 3D
Dual 5 Megapixel
cameras

Sharp Aquos SH-12C
Dual 8 Megapixel
cameras

"Your Life in Sony 3D"

Consumer competition – submit ideas
- Sports & Recreation
- Arts & Entertainment
- Cause & Community
- Life Milestones & Events

Grand prize: a 3D video of the winning idea
- shot on Sony professional equipment and
- aired nationally on 3net, the 24/7 3D network

WHAT WE KNOW ABOUT SCHOOL READINESS AND LEARNING TIES TO 3D VISION

"Visual factors are better predictors of academic success than race or socioeconomic status ."

(Vaughn et al., 2006)

Children, Learning, and 3D

Look for these five warning signs that your child may be part of the 25% who will be at a disadvantage in the classroom this year.

- Returns from seeing a 3D movie feeling dizzy, nauseous or with a headache; or child doesn't see a difference between 2D and 3D images

- Trouble hitting or catching a ball

- Clumsy, often bumping into things

- Frequently loses place when reading or uses a finger to follow words

- Discomfort and avoidance of reading and 3D viewing

American Optometric Association (AOA)

Studies have proven that early intervention and treatment can reverse vision conditions and put students on the path to success.

Source: California Optometric Association, 7/28/11

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Worldwide 3D TV Forecast

Millions of Units / year

More Optimistic

5/6/11

Active glasses

Passive glasses

umer 3D Choice

Glasses-free

NINTENDO 3DS

Glasses-free

Head Mounted Display

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3D is global

3D Porn
Hong Kong

Argentina
Animation

Sports Worldwide

Turkey
Live Action

Japan
Games

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Consumers don't buy technology, they buy the experiences that technology delivers

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Conclusion

3D <u>will be</u> in TVs, PCs, game consoles, etc., as well as movie theatres

Premium or standard feature?

Special effect or fundamental to storytelling?

For all content or for select content or genres?

Niche or mass market?

TBD

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Thank You

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