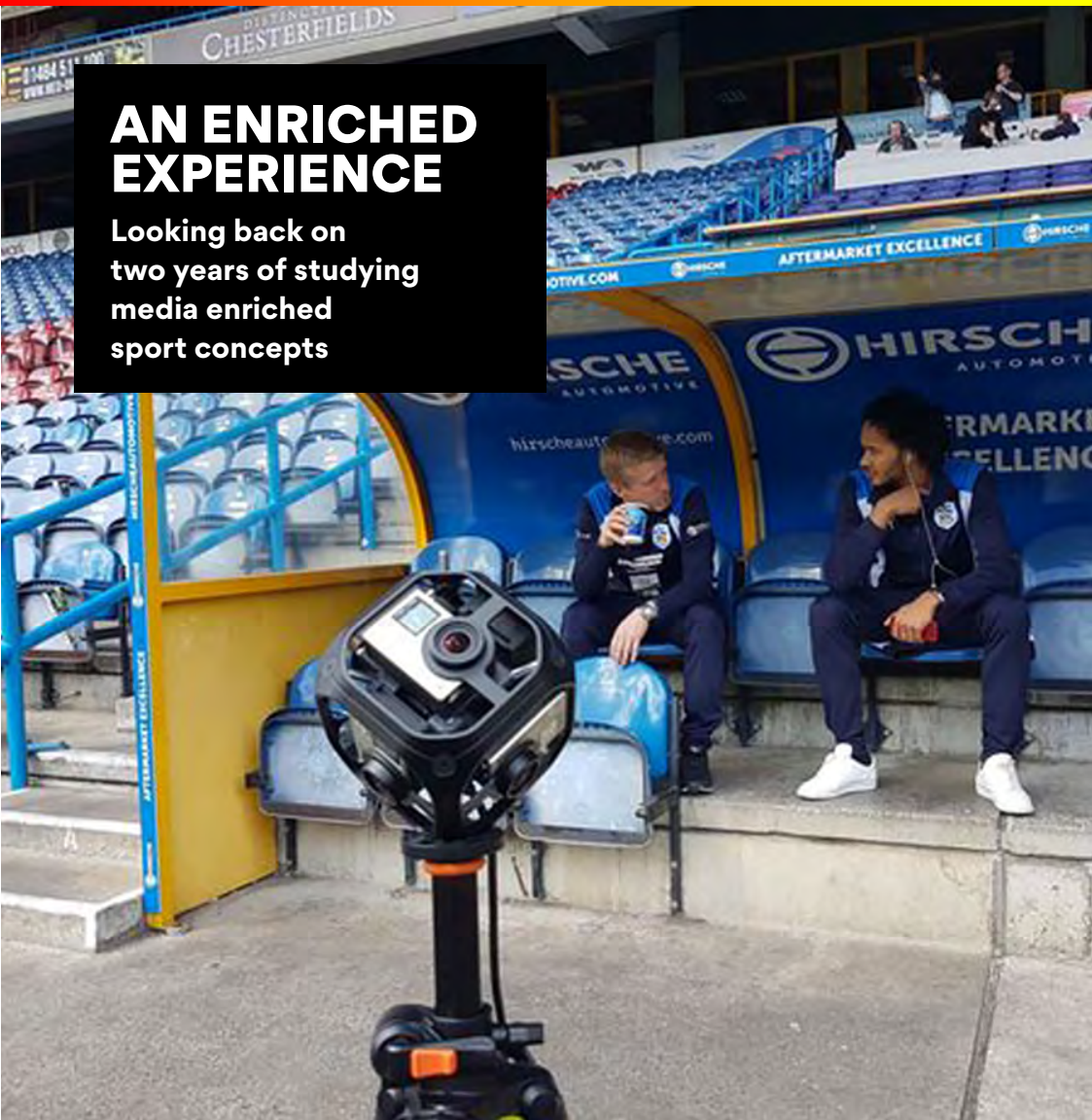




MEDIA ENRICHED SPORT EXPERIENCES

AN ENRICHED EXPERIENCE

Looking back on
two years of studying
media enriched
sport concepts



COLOPHON

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PREFACE

Hilversum is the media capital of the Netherlands, with the Media Park as the vibrant heart of our ecosystem. We are the home base for hundreds of media and IT companies: public broadcasters, commercial television and radio, digital design agencies and tech-companies. This concentration of specialised media and tech companies gives us a unique position in The Netherlands and the world.



The municipality works hard to ensure Hilversum stays this unique and vibrant place to work and live. We enable media entrepreneurs and other innovators by connecting them and helping them to find inspiring offices and housing. We invest in culture, events and the city centre. Also we make sure it's easy to get in touch with talent and relevant vocational and higher education for both young professionals and experienced workers. In doing this we work closely with stakeholders in the city like Media Perspectives, Hilversum Marketing, The Netherlands Institute for Sound and Vision and the Media Park.

With more than 10,000 people working in our media and tech industry, innovation is part of our DNA. That's why we are always eager to get in touch with students and researchers to work on cases, develop concepts and build prototypes. The professorship Media Enriched Sport Experience was a chance to engage both students and researchers from Breda University of Applied Sciences and professionals from Hilversum based companies like Ziggo Sport and United. Together they explored new possibilities in the field of media, technology and sport experience. Examples of their work are gathered in this e-book.

I hope students and researchers of Breda University will be frequenting Hilversum to develop more new innovative ideas. The new minor E-sports offers a great opportunity for that. If we keep working together, the future for sport fans and media companies looks bright! Hope to see you in Hilversum.

Wimar Jaeger

Alderman Media & Economics
Municipality of Hilversum



MEDIA ENRICHED SPORT EXPERIENCES?

Sharing some substantiated thoughts

Gisbergen, M. S., van., & Bonenkamp, N.H.W.

INTRODUCTION: ALL STARTS WITH WHY

What would you do? What would you do to increase the experience of a life sport event? Do you even think it is needed? And if so, how would you do it and where would you start? With the visitors of the life event or the people that attend the life event through media? Or what about both? Why not connect the life audience in the stadium with the people watching it through a medium to create a better overall experience? To answer among others these questions the City of Hilversum, ZIGGO and

The transition from static sport events to immersive sport experiences

WHY DO IT?

There were several reasons to start a professorship related to Media & Sport. The first reason relates to **(A)** rapid development of new (experience) technologies. Technologies that range from wearables to virtual and augmented devices and from data extraction to automated content creation (remediation). These new technologies seem to provide new opportunities but also challenges that make it difficult to adopt these technologies. A safe environment for trial and error is needed in which learnings are shared. And where new ideas, approaches and concepts are stimulated by means of creating new multi-disciplinary teams. A second reason deals with the rise of more **(B)** scattered media audiences. Due to the increase in media (content) it becomes a challenge to reach and engage media audiences. As such media audiences become smaller, which encourages the idea to look for mass customization media strategies as well as using new technologies to connect media with (large) live audience events. A third reason is **(C)** the transition of (I) media companies from media gatekeeper to full service entertainment production companies and the (II) transition from (the importance of) static sport events to immersive sport experiences. These transitions create new opportunities that will be tapped into by means of combining, stimulating and sharing insights.

Breda University of Applied Sciences started a new professorship: **Media ENriched Sport ExperienceS** (MENSES). This professorship aims to create new media enriched sport experiences, by means of introducing innovative digital concepts combining media entertainment and live sport content. As such it will help organizations to answer the question how live and broadcasted sport experiences can be enriched by means of new digital strategies. By combining interaction, transformation and data enrichment, the mediated and live sport events could be turned into a memorable sport experience.

OVERVIEW OF DELIVERABLES



3

PROTOTYPES

AR 2nd screen
360 VR stadium
Sail feedback app



296

BA & MA STUDENTS

Top Class Digital Design
Master of Media Innovation Reg
Master of Media Innovation Exec
Creative Business



15

OUTPUT VISIBILITY

Website
Press-releases
Presentations
Articles

48 CONCEPT (STUDIES)

See overview
on page 12-13

1 NEW MINOR

E-sports

14 COMPANY INVOLVEMENT

Hilversum
National
International

WHAT DID WE DO?

With a multidisciplinary team of professionals and students, that reflects on the one hand the media knowledge and on the other hand the leisure and live events knowledge as well as the skills to measuring experiences, several concepts were created and investigated. The overview of deliverables above provides an overview what the team has been producing in

the past two years. Much of the insights generated can be reached on the website: www.menses.eu.

It is too much to provide all the insights and learnings that came through these deliverables, and some results are still being analyzed. However, there are some highlights that are addressed in this booklet. Some observations might be obvious, but still good to point out. First,

the abundance of new technologies. This makes it almost impossible for companies to make a choice, let alone a substantiated choice based on experience effects they realize. This asks for an overview of types of technologies as well as means to measure and compare experience impact based on the use of these technologies. Second, the concepts and studies revealed the huge differences in audience generated segments. Of course they also revealed the traditional challenges in how to reach the young audience with specific needs without losing the 'older' loyal audience. However, simple commonalities were found as well. For instance the need to be connected with others and invite and interact with them during a sport event is strong. Simple technology that helps to do that, can still be improved. Third, besides age, the initial interest and understanding of the sport creates substantial different experience expectations as well as technology demands. A one-size technology that drives all, does not work. Both sides of the segmentation spectrum even have opposite needs (e.g., the need for functional data is seen as disturbing for non-experts, while the need for extra experience content from rookies, is seen as distracting for sport experts). Of course when it comes to concepting we have experienced that many technologies are new and in development. This means that they raise questions among companies how they work and provide challenges as the technology is still not finished. The concepts provided also interesting insights that seem promising when it comes to enriching sport experiences. Some of the results we can organize by means of the Sport Experience Technology Model.

How to reach the young audience with specific needs without losing the 'older' loyal audience

TOO MUCH CHOICE: USING THE SPORT EXPERIENCE TECHNOLOGY MODEL

We face a luxury challenge, realizing that almost no media (technologies) disappear while new (media) technologies enter the market every year. The challenge to choose between all these technologies that enable a connection between the triangle of sport audience, live event and media consumption, is almost undoable. This was one of the reasons we wanted to start with making a categorization of technologies based on four different goals when it comes to creating sport experiences: remediate, interact, enrich and transform. Most of the concepts researched or created within MENSES fall in one of these categories.

Remediate: Several technologies are used to remediate (available) content across different media reaching different audiences. This includes the inclusion of new channels e.g., YouTube channel summaries and 360 view of matches and audiences. This connects with the trend of viewing media (sport) in smaller bites and snacks whenever it is needed. Another remediation



Why AR can (not) enhance the experience of watching live sports events?

takes place during live watching: using new technologies such as 5G on smartphones and using wearables and screen projections in stadiums: *“Live sports productions in virtual reality will become “Second Screen 2.0.”* – Michael Davies, Senior Vice President Field and Technical Operations, FOX Sports. Students came up with several concepts based on this goal. One of the studies indicated for instance that Instagram stories seem to engage youth in broadcasted soccer experiences.

Interact: technologies aimed at increasing experiences by means of interaction between audiences and/ or between content and audience. These technologies can be divided in four types: (1) Overlays: The use of social media like Twitter, Periscope, Twitch, Stadium Screens and Projections to connect audiences during the live event; (2) Digital interact: This mainly concerns smartphone conversations between players, fans, friends and the audience at home and in the stadium; (3) Games: in which game elements are connected with the live sport (such as the game keep your eye on the ball); and (4) Fan based interventions: in the play or while viewing like personalized

ENRICH: AUGMENTING SPORT EXPERIENCES

To enrich the viewing of live sport events life sport experiences, we decided to develop the first augmented reality (AR) based sport second screen sport application on the Microsoft HoloLens. Students of the master and media innovation program came with the idea of a second screen AR live-sport application using the Microsoft HoloLens. This idea, pitched in the ZIGGO industry

case, was further developed, together with (former student) game developer Sjors Thomassen, towards a working prototype together with VodafoneZIGGO. Although much effort was based in automatically finding and locating the television screen, students are investigating what kind of data people want to see inside the AR second-screen as well as interviewing experts to gather arguments on why AR can (not) enhance the experience of

watching live sports events? Although we really want it, the main concerns are: (a) a better understanding of the why is needed (experience increase?) and proof that it works, (b) technology demands: needs better vividness, accuracy (tracking and overlaying) and delay, (c) Complexity of use: wear ability, comfort and transportability issues and (d) privacy concerns. See www.menses.eu for the benefits and content demands and the data people want to see in AR.

Change the sport itself using new technologies

pricing or offerings during game play: *“Live sports moves beyond Twitter in a big way, with premium live content showing up across multiple digital platforms.”* – Chris Schlosser, Senior Vice President & General Manager, Major League Soccer Digital. The concept studies for instance indicated that: *“Game based quizzes during sport broadcasts seem to increase experience”* and *“Social media content during sport broadcast seems to be an important tool to create a social sport experience”*.

Enrich: The third type of technology is aimed at enlarging sport experience by means of enriching the sport with added information. These enriching overlays are divided in: (1) Data overlays: Real time data display and interaction, combining broadcast media and live stadium data (hard and soft); (2) Personalized experience: location based, media preference based, sport experience based, viewing preference based (e.g., customized instant replays and multi-angle replays), and (4) Game & leisure entertaining experiences: adding story and gamified elements: *“This will*

be done with a smart combination of virtual reality video and layered graphics, statistics, and social.”— Luis Goicouria, Senior Vice President, Digital Platforms and Media Strategy, PGA TOUR. Examples within MENSES of enriched technologies and content ranged from data, to games to betting and showed among others that *“To personalize heroes during a Formula 1 race increases experience”* and that viewers liked interactive AR betting which *“did not interrupt the sport viewing experience”*.

Transform: Maybe the most challenging goal is to change the sport itself using new technologies. The merging of technology within the sport game has already created a new domain, E-sport, that is consumed by a huge number of spectators. Technologies used to transform the sport are among others Virtual Reality: e.g., goal of the day experience, replay the match yourself and new racing or cycling challenges within a fictive environment wearing head mounted devices; Gaming: E-sport matches as well as letting audiences be involved in the sport event rules, challenges and content (viewer participation); Augmented Reality: synchronized holographic images recreating existing live sport events as well as projection of computer generated content within the sport event (e.g., using projections with challenges during climbing wall competitions), New narrative structures: introducing sport as a non-linear experience, from player to characters, and new viewer perspectives. And for some maybe the most dramatic example comes from using the VAR in soccer matches, discussing how this has an effect on life stadium and media audiences *“Sports to emphatically embrace IoT sensors and*

technology applications and to redefine an ages-old competition platform that relies almost exclusively on human judges.” – Sean Gleason, CEO, Professional Bull Riders. However, this might also take some time. Despite that MENSES student research indicated a huge interest in e-sport, they also seem skeptical about the added value of sport experiences through VR, AR and AI. On the other hand they did value the adding of voice to a VAR system to increase experience peaks and avoid experience dips while watching sport.

TOO MUCH AUDIENCES: THE NEED FOR A NEW SPORT EXPERIENCE SEGMENTATION MODEL

Deciding on one of those four goals beforehand, may help to select the technology you want, or need, when trying to enlarge sport experiences by connecting live and mediated sport content and audiences. However, that raised the question of diving deeper into audience segments when it comes to enriched sport experiences. As such many of the projects went into trying to make a segmentation overview of different target groups, mainly based on three axes: (a) location (ranging from in front of medium to life at event), sport engagement (ranging from hate to love) and sport knowledge (from rookie to expert). Based on these axes, different segments can be located with different experience and technology needs. Some of the students within MENSES took these segments into account and came up with the idea of *“on command personalized statistics”* while viewing a sport match.

EXPERIENCE ONWARDS

We hope this booklet will provide some interest and key insights in the why and how to create enriched sport experiences. We would like to thank everybody who helped us to realize the concepts and studies around MENSES. And those who helped to connect students with companies within Hilversum. Although we can't bring to life all the great concepts and ideas that arose within MENSES, we will continue by focusing the coming years on two pillars. First we will try to get a grip on the need to measure the effect of new technologies on sport experiences. We will try to create means to compare experience impact scores within our Experience Lab using observational tools. Second we will take out one of the key fields that seem to deal with all four technical goals, from enriching to transforming, namely e-sport. Creating and extending the minor e-sport in the coming years to go. In the mean time we will keep this platform open to further dive into the possibilities and challenges of creating media enriched sport experiences.

APPENDIX OVERVIEW OF MENSES CONCEPT (STUDIES)

TYPE	TITLE /SUBJECT OF CONCEPT (STUDY)	CLIENT
Professional concepts	MENSES CURATED CHARACTERS	Sailing Innovation Centre (SIC)
	MENSES CONTEXTUAL SAIL CONNECTION	
	MENSES INTERACTIVE VIRTUAL YACHT CLUB	
High school concepts	ZIGGO Social: User Generated Commentary	Beeld & Geluid/ Ziggo
	ZIGGO Layer: AR second screen holograms	
Master Executive concepts	United E-sport Platform	UNITED
	United Clan: your hub for Esports	
Master Regular concepts	United VR E-sport second screen	UNITED (2019)
	United VR E-sport move	
	United Integrated Mixed Reality Sport app	
	United E-sport pop up	
Bachelor concept research 1	Differences in Word-of-Mouth recommendation	Ziggo
	Enhance experiences: what do millennials do	
	Social Media Behavior towards sport consumption	
	New digital strategies for live broadcast sport events	
	How different contexts influence the experience	
	Using second screens to enhance sport TV experience	
	Can apps enhance audience engagement	
	How can VR enhance the experience in sports	
	Using AR to enhance live sport experiences	
	Expert recommendations on how to use AR in sport	
	Differences in drivers for buying a tv sports package	
	Millennial motivations to Subscribe to Paid Sports	
	Less intrusive advertising during soccer games	
	Perceived risks in sport privacy sharing data with TV	
	Perceived risk reduction strategies concerning privacy	
Does story trustworthiness impact message outtake		
Master Regular Concepts	@-ZIGGO	Ziggo
	ZIGGO-YOU	
	ZIGGO-SPORTS	
	ZIGGO-AR	

TYPE	TITLE /SUBJECT OF CONCEPT (STUDY)	CLIENT
Professional Prototypes	THE 360 vr stadium experience	Huddersfield Town FC
	The visual sports experience feedback app	SIC
	The Augmented Virtual Second Screen Sport App	Ziggo
Bachelor concept research 2	Understanding experience needs of youth watching live sport	VodafoneZiggo
	Storytelling to extend the sport experience among youth	
	Enhancing the viewer experience of Youth watching Formula 1 racing	
	How to increase suspense watching a live broadcast of Formula 1 sport	
	Explore how VodafoneZiggo can utilize the trend of E-sports	
	VodafoneZiggo – Paving the way for E-sports in The Netherlands	
	New trends for enhancing an mediated sport experience	
	Trends that enhance the experience of sports media consumption	
	Soccer and Instagram stories: creating new experiences	
	How interactive betting can affect a broadcasted sport experience	
	How Augmented Reality might change a sport experience	
	The Influence of Word-of-Mouth on Intention to Consume Sport	
	Giving VAR a voice: enhancing football experience	
	How social media can impact a sport experience	
	The effect of social media on a sport experience	
	How to maintain a steady position in the sports-streaming market	
	How to make sport broadcast so appealing youth want to pay for it	
Finding the competitive advantage of Ziggo Sport over competitors		
Examining the motivations of sport subscriptions		

“WE’RE LOOKING FORWARD TO WORKING WITH THE STUDENTS IN THE NEAR FUTURE AGAIN”

Jasper Elsackers
VodafoneZiggo



Who are you and what is your role at VodafoneZiggo?

“My name is Jasper Elsackers and I work as Sr. Content Strategist at VodafoneZiggo. This means that I work on our position in the ever changing content landscape on the mid to longer term.”

VodafoneZiggo has presented business cases to BUAs master as well as bachelor students on various occasions. What’s your general experience working with the students?

“For us as a big corporate player in the market, it’s refreshing to be in touch with students from time to time. They provide us with interesting angles of approach and deliver us useful insights from a target audience that we find hard to reach.”

Recently a group of BUAs bachelor students presented their work at VodafoneZiggo’s headquarters in Utrecht. How was the event?

“It was a pleasure to host them, and it was very interesting to see the different approaches they came up with in our case. We were impressed by the presentation skills and the visualization of their ideas.”

Within the context of the professorship Media Enriched Sport Experiences several concepts have been developed by BUAs students? What’s your impression?

“The ideas behind the concepts were great. We were impressed by the creative approaches and although not all concepts are viable in our business, they are worth looking into. We found them really useful and are open to discuss next steps with the students.”

In what matter has being a partner in the professorship contributed to the (research) questions and developmental goals of VodafoneZiggo?

“It’s refreshing to hear the sound and opinions from the angle of a young

audience. In regular research, we focus on the majority of our base, most of the time a bit higher in age. We’re continuously trying to find balance between the customer of today and the customer of tomorrow. The students provided us with useful insights from the latter audience.”

Has any of the concepts and/or prototypes led to implementat in or further development by VodafoneZiggo?

“Not at this moment, but we still have them top of mind, and love to discuss next steps with the students.”

Anything you wish to add?

“We want to thank BUAs for the great partnership and guidance in the cooperation. But our biggest thanks obviously go to the students, who handled the cases with passion and expertise and provided us with great insights and ideas. We’re looking forward to working with them in the near future again.”



PROJECT VOLVO OCEAN RACE HACKATHON

Designing the sailing
competition of the future

THE ANALYSIS BEFORE THE CONCEPTS

In 2018 we were approached by Cees van Bladel, managing director of the Sailing Innovation Centre (SIC) of The Hague and former Olympic sailor to address the question of designing the sailing competition of the future. Or how to engage (more) people with sailing as a sport and investigate in new ways how to enrich the sailing experience.

One of the projects was a sail hackathon during the finish weekend of Volvo Ocean Race in June 2018 in the harbour of Scheveningen organised by SIC and hosted by Sailmon. Before starting to think of concepts participants from TU-Delft and BUAs first made an analysis of why it is so difficult to engage with sailing as a sport. Together with former sailors and sail experts we came with the following reasons:

WHY

- “I **can't see**, it's too far away: can't see faces, obstacles, actions or invisible nature (wind)”
- “I **can't see**: it's often just too wet, can't reach sailors as a spectator or with my technology”
- “It is **boring**: I takes too long before the winner is made clear (many protests, counting)”
- “It is **boring**: Duration of a competition is sometimes impossible to endure, too long”



- “It is **boring**: It takes too long before something happens that I can see as audience”
- “I **can’t plan** a match. It is unclear when they finish, start or how long it takes”
- “It is **not fair**: not equal about humans; the best materials, money and boat wins.
- “It is **not fair**: because of unexpected nature, the most lucky one wins”
- “It is too **difficult**: so many competitions. Who is the best sailor?”
- “It is too **difficult**: don’t know who is winning or why”
- “It is too **difficult**: too many rules”
- “It is too **difficult**: terms used”

WHAT

When creating new media enriched sail concepts based on solving one or more of the aforementioned topics. We first needed to decide what can we change? In short we can enrich the following: **(1)** we can *change the sport (new)*, **(2)** we can *enrich the sport (change)*, **(3)** we can *enrich live event consumption* and **(4)** we can *enrich the mediated consumption*.

Within these 4 domains we can use several building stones to provide facts or tell stories about: **(1)** the sport itself, talking

about the history of the game and the sport. Also **(2)** the athletes/the sailors have their history and stories that can be tapped into. However, not only persons can be created into hero's, also **(3)** the boat itself can be turned into a character and carry information that ranges from facts to stories. The same goes for **(4)** the brand and **(5)** the competition (challenge). Finally information, facts and stories, can be created around the **(6)** community (the audience/each other).

We also thought about what is good about the sport. What makes it so great (compared to other sports?). What can we utilize in the concepts we create? The following was mentioned by sailors and experts:

Nature: “Almost no other sport haâ our scenery ... the outside environment is unique and we are environmental friendly”. “It’s not like darts inside. There are more surprise elements, as nature plays a role”. “Unlike basketball, nature plays a role, that’s exciting, from storm to changing currents to day and night”

Different skills: “Unlike weighting lifts, many types of people can win: it’s not only the strongest muscle”. “A lot going on from strategy to endurance: it’s like playing chess on water”. “There are competitions within competitions, not only one winner”

Dynamic: “There is no rest like in tennis, always in motion, always fighting”. “It is a physical fight: humans get tired and emotional, things go wrong, break”. “Not like boxing about individual. Its individuals and teams, story and dynamics”

That’s exciting, from storm to changing currents to day and night

HOW

Based on this analysis, several ideas were formulated:

- **Enrich and engage dead moments:** add obstacles. Moments to overtake and competitions (like intermediate sprints)
- We need to **simplify the sport**, educate the audience or make experiences more visible
- We need to **inform audiences sooner**: like virtual jersey or predictive winner
- We need to **get the audience closer**: live (inflatable seats) or digital (stories)
- **Engage the audience closer**: more stories, more sounds, more emotions
- **Enrich the athletes**: we need heroes, stories, enemies, events
- We need **more winners**: best overtake, best strategy, fastest lap
- We need to **activate the audience**: from spectator to player like e-sport

However, only the following three concepts made it to the finals.

- Curated Character Narratives
- Contextual Sail Connection
- Virtual Yacht Club

See the following pages for a summary of the hackathon concepts

Curated Character Narratives

Reinvent the identity of sailing (slow, boring, not much happening, for rich people, old-fashioned) | Destroy image of inaccessibility for young people | Create an accessible new image for the sport, that fits the current young 'vlog' generation

WHY
Destroy the image of distance

WHAT
Digital stories and adventures

WHERE
Digital Consumption Sport



WHEN
Before, During, After

WHO
Female Young Rebels

Scripted reality

Document using "vlogs" social media channels. Extraordinary semi-scripted events (crises?). Demonstrate journey from newbie to adventurer (Show a way to access the sport without a lot of money (borrowing boats)

Make the adventure visible

Use Augmented reality and Virtual Reality to overlay various obstacles on the course. Overlay projections of rocks / treasure or other exciting things! flag?



Simplify & Dynamic

Improve the showing of the effects of wind, show the course! Other games? Pirate treasure? Capture the flag? Training & competitions, Attract a completely new audience!

Video Log

Training Day May 22nd 2018

Enjoying the breeze May 20th 2018

Reliving memories May 16th 2018

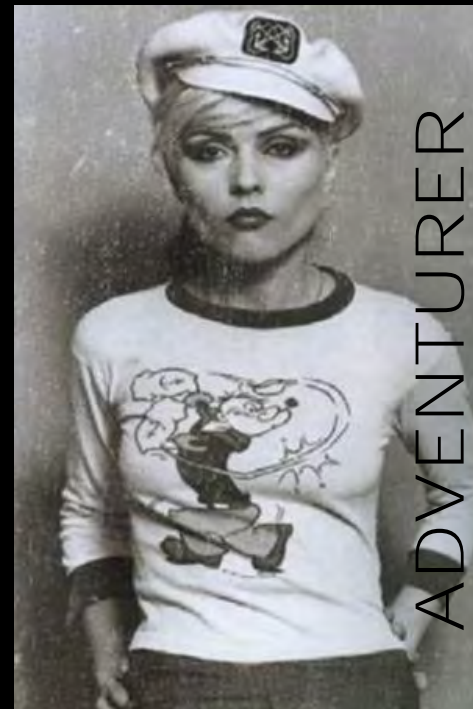
Delta Lloyd

MARIT BOUWMEESTER

DOB June 17th, 1988 | Height: 177cm | Weight: 68kg

Most recent race	May 16th, 2018	France	La Rochelle	Watch Highlights
EK 2018	Finished: 1st			
Salmon Regatta	May 13th, 2018	The Netherlands	Scheveningen	Watch Highlights
Salmon Regatta	May 9th, 2018	The Netherlands	Scheveningen	Watch Highlights
	May 13th, 2018	The Netherlands		

Not just the facts, but also the stories!



Contextual Sail Connection

Providing Data in a Personalized Context during 3D visualization of the race with live data/tracking

WHY

Increase engagement by giving meaning to data used

WHAT

Mobile App

WHERE

Digital Consumption Sport

WHEN

Before, During, After

WHO

Audience at live sail event

App as digital intermediate between the complex sailing sport and the viewer



Before

During

After

General information (wiki)

the participating sailors, type of boats, race, competition etc.

Live scoreboard and stats, map overview, information about sailor during race

Results of the race, new stats of the competition, new milestones for racers

In depth explanation (informational context)

Sailing rules, races, possible strategies,

Live data / tracking of all boats, 3D visualisation of the race

Summaries of tracking, opportunity to recreate the race with 3D visualisations

In depth explanation (emotional context)

Interviews with sailors/coaches about training efforts, expectations etc

Comments by experts, highlighting the important moments of the race, discuss strategies

Interviews after the race with sailors/coaches about the results. What happened when and why during the event?

Also: get informed by experts and fans from the community (integrating existing platforms like twitter)
Next step (when budget is not limited): add audio and video to the race (on board, drone shots)

Everybody has access to the same information, but "Giving data only gets value by giving context to it" The way information gets explained depends on your knowhow (ignorant, getting involved or a fanboy). Opportunity to switch between levels of skills by easy interface (scale your knowledge per element)

The Virtual Yacht Club

Instead of reaching and engaging people during the events,
We will start to reach and engage people before the events

HOW

Scraping existing data and hero's
Added with gamification elements

Virtual Theoretical Sailing Certifications:
Basic Keelboat Sailing, Coastal Cruising,
Bareboat Cruising, Coastal Navigation, etc.

Newsletter with curated content:
To allow people to interact with the exciting
aspects of sailing.

Betting Battle Competition:
Betting on the teams or skipper about their places
on the regattas, for example.

Playful Regattas:
"Regattas" or sailing events in which some "outsiders" could
participate.

Gamified Virtual Regattas:

Leaderboards

Badges

Points

Virtual Prizes

Actual Prizes

WHY

Get closer: capture the
feeling of belonging

WHAT

Online (club)
Community

WHERE

Digital Consumption
Sport

WHO

Audience that
likes sailing
Without knowledge

WHEN

Before, During,
After





STUDY RECOMMEN- DATIONS ON HOW TO DESIGN MEDIA ENRICHED SPORT EXPERIENCES

What we know from research about the design of media enriched sport experiences

Calvi, L.

When the sport experience is watched through a public interactive display (one people have to interact with to get a better experience), the presence of a passive audience of bystanders has an impact on the users' behavior in front of this display.

This impact is expressed as:

- Low or no interaction with the public display when an audience is around – and rather return to the display when the audience is no longer present
- Distance of the user from the public display. The position taken by the user is influenced by several factors such as: the audience's cardinality (ie the larger the size of the audience, the farther the user stands from the display); the audience's physical distance to the display and to the user (i.e., the distance between the user

and the display is inversely proportional to the distance between the audience and the display); the audience looking or not at the user, and the user's awareness of being looked at. Most important, though, is the relationship between the user and the audience – if this is one of familiarity, all of the above is not relevant (see attraction-transformation model).

- The presence of social tension within the group, which might discourage interaction. However, it is not clear whether or not people are encouraged to engage through the presence of other group members

Also the configuration and the setup of public displays can be used to influence the behaviour of the users and the audience (both passive and active). The setup for example can be manipulated to induce or prevent intentionally a spotlight effect, that is an estimate of the relevance of and attention to one's own actions.

When the sport event is disperse, i.e. it is an event where information about contestants is sparse (like in cross-country skiing), users can easily follow the event through the use of biosensors applied on the contestants' body.*

This means that:

- Viewers can follow a contestant of their own choice – and not only the one in lead – and get to know their exact status at any given point in the race
- The focus of the experience is on users' engagement
- This setting gives viewers an enriched and enhanced experience by providing them with additional context to the sport event

Problems encountered:

- Some of the information, especially pulse data, was not updating at all times
- The map on which viewers could follow the position of the skiers was slow to load

Important to know that:

- In this project, privacy was not an issue, as the whole idea was to share private data
- Wearing sensors for skiers was not difficult nor intrusive
- Data analyses after the race gave clear information about the athlete's performance
- As an unforeseen side effect: The live Internet sensor data from the athletes

** The monitored skiers are equipped with sensors measuring altitude, position, pulse, and speed. The sensor used to monitor the heart rate consisted of a belt worn around the chest.*

actually triggered people to call up one of the athletes during the race and comment on position, speed and heart rate

Possible future extensions:

- With several cameras positioned along the track and by utilizing location-awareness, a viewer could select to automatically switch to a camera currently filming a certain contestant. This kind of system could be developed for both Internet and television by using new technology in digital television
- Focus on time displacement: In a sport event where contestants have different starting times, a comparison of physical location of contestants at a certain progressed time can be displayed on a map

Active spectating is very important to enhance the experience when watching live sport events, especially distributed live events.

This was analyzed through in an in-depth study relative to outdoor car rallies in the UK and Sweden.

The focus was on:

- Designing for those who observe, but do not have direct involvement in an event => the spectators indeed
- Designing for active spectatorship: spectators are actively engaged in staging their experiences: navigating and selecting places, settling, creating multimedia records, expressing group image (some wear "uniforms"), and interacting within their groups and with strangers

- Helping them put the details observed into the broader context of the sport event – so that they get to know what a particular lap means for the overall race, or what a particular game means for a whole competition
- Helping them overcome the long periods of waiting, since the 'action' only takes a small part of the time spent watching, causing considerable boredom
- Considering the social side of spectating: sport events are important not just in themselves but as 'resources for conversation' among spectators

From observations, we indeed know that:

- Much of the value of spectating comes from being 'close to the action'
- This is also a difference with the TV- experience: it is the personal capturing of the up-close view
- Spectators look for the best spot to watch from – a good balance between a good close up of the cars and yet getting the overview of the race
- Spectators develop subjective strategies to figure out the car rankings, based on their physical location
- Spectators like to take pictures – photographs can be shared during an event, with the photograph acting not only as a way of capturing the event, but also as a talking issue afterwards. Photographs emphasise the 'I was there'
- The importance of sociability at live sport events: photos are also valuable 'resources' for conversations

The outcomes above can be achieved by:

- Finding the story in the race, something that a single spectator cannot do
- Designing technologies that do not take

spectators' attention away from what they can see and experience

- Designing technologies that emphasise the active role of spectators – their personal engagement should be encouraged, for example, through a connection between the information provided, and the activity and position of the spectator
- Designing technologies that take into account the social aspects of spectating, spectating as a social activity and as something valuable for present and future conversations

Conclusion: Spectating is an active process, and automating certain aspects of being a spectator (such as providing more general information about the overall car ranking) may not necessarily enhance the experience. Applications should enhance the spectators' engagement, rather than simply push potentially irrelevant information at spectators. **3 design guidelines** can be derived from the above: (1) Design technologies that do not distance observers from what they can see; (2) Design spectating technologies that do not simply push information at spectators but that support their active engagement with the event; (3) Design technologies that do not simply monopolize spectators' attention, but fit into existing valuable social interactions

Spectating is never a single activity, but it is a participatory practice, in distributed sport events.

Sharing with others enhances the event's experience on-site. Co-creating the experience is more rewarding than merely documenting it or communicating it to others

From a **design point of view**, spectating technology should be designed to support the different facets the spectating experience is made up of, such as maintaining relations to a social network (group's co-experiencing of the event), or maintaining awareness and engagement to the event (enhancing event presence).

Remote spectating, or remote fan experience, that is watching broadcasted sport events on TV, is influenced by group affiliation.

The most important factor that influences sport fans to watch and attend a broadcasted sport event on TV is **group affiliation** – their desire to be with others. Similarly, they support a team if they feel others do – and cease to do it if they feel they are the only one

- emphasis on the strong emotional connections among fans and between them and their team
- a sense of community is created

In this sense, it is crucial to make remote fans feel connected with others and provide them with an enhanced experience by creating the feeling that they are not alone watching the sport event. For this reason, it is usual for fans to gather before, during and after sports events – as in *tailgating* in US or pubs in UK.

A way to improve the social component of the experience is by means of **second screens**. Second screen applications aim to provide additional show-related information, access to social networks and interactive experiences synchronised with the program content, such as polls or quizzes. A research by Nielsen (2013) shows that nearly half of smartphone (46%) and tablet owners (43%) use their devices as second screens while watching TV every day.

To summarize, the remote fan experience is therefore comprised of three elements:

1. the venue where the event is taking place*
2. the television broadcast that remote spectators are watching**
3. the social factors related with the sports event

Through live video broadcasting, viewers can explore the world through someone else's eyes in real time, which can help to create unique experiences.

* *Atmosphere of a particular place = information about the environmental features of the place + information about the affective responses of the people located in that place*

** *Television broadcasts delays can have a negative impact in the remote fan experience*

'FRONT ROW'

Thanks to Google, Manchester United's remote fans were able to cheer their team live by using the Google+ Hangout service in a feature dubbed "Front Row". Cheering videos appeared on the Old Trafford stadium's digital screens (next to the turf), visible to all players, in-venue fans, and remote fans, which helped to create an enhanced experience, where in-venue and remote fans could feel that they were together supporting their team.

However, it is necessary to take into account the "liveness" and the impact of spoilers during a sports TV broadcast, otherwise viewers can have a frustrating experience.

Issues to consider with second screen applications are:

- **Users' attention focus:** While second screen applications are designed to enhance viewing experience, the use of an extra screen results in a competition for users' attention. If attention is not appropriately directed between screens, the second screen could diminish rather than enhance engagement with the broadcasted content
- The television **could distract** from time-sensitive, interactive content on the second screen: In a study by Holmes et al., viewers started to look more frequently at the tablet during the television show, even when there was not any reason to interact with the second screen application

- Shifts from the TV to the tablet are **primarily visually driven**, while those back to the TV are primarily driven by audio or other peripheral stimuli
- **Effect of the TV delay** when watching broadcasted live events: it is common for some viewers to receive events on second screen applications that are not synchronised with the TV broadcasts, which may spoil their viewing experiences. The goal is to provide not-disruptive experiences

The challenge is to develop second screen applications that grab the viewers' attention at the right time to provide interactive content, i.e. when it is safe to shift the attention from the TV, without the loss of important events.

Limitations of second screens: Until now, the only interactions that a remote fan can perform through a second screen application are:

- the possibility of predicting what will happen next
- interactions with peers ONLY take place through traditional text-based chats - therefore remote fans are engaged in rather poor social interactions

DESIGN RECOMMENDATIONS (GENERAL)

- Design for active spectatorship
- Design for sociability, i.e., design technology that supports social engagement
- Design for emotions – these should be considered an essential aspect of any system designed to support

- communication among remote spectators of sports events
- Design spectating technology that do not distance observers from what they can see
- Design spectating technology that do not simply push information at spectators but that support their active engagement with the event
- Design spectating technologies that do not simply monopolize spectators' attention, but fit into existing valuable social interactions

DESIGN RECOMMENDATIONS FOR SECOND SCREEN APPLICATIONS

To prompt users to interact, two types of events can be designed:

- **Application-triggered events:** where the application prompts users to interact after a specific action occurs during the broadcast (e.g. dangerous play, goal or freekick): as users can safely shift their visual attention to the mobile device
- **User-triggered events:** where users can bet that a goal will happen or share an emotion at any given time
- Best is to design interaction mechanisms that are one tap away, otherwise users might lose the opportunity to interact.



STUDY A REAL VR SPORT EXPERIENCE?

How adding effects
can change realism and
experience of a 360 VR
soccer stadium visit

Gelsing, B., Gisbergen, M. S., van.,
Doicaru, M., & Walker, M.

INTRODUCTION: ALL STARTS WITH WHY

When creating a 360 Virtual Reality (VR) sport experience of a visit to a sport stadium, marketers need to think up front of the reason why to do it. Why would you want to create a 360 VR sport experience and what does the audience want from it? There are many reasons to do it, but the two most common mentioned reasons are: (a) to let people experience how it is to visit a sport match, in order to attract new audiences*. The key goal is

**The key goal is to create
a feeling of presence:
of being there as if it is real.**

360 VR stadium visit, without losing feelings of realism, of truly feeling present in a sport stadium during a sport event? A question we wanted to answer within the Media Enriched Sport Experience project.

VIRTUAL REALITY TO CREATE PRESENCE AND ENGAGEMENT

to create a feeling of presence: of being there as if it is real. The other reason is (b) to give visitors and sport fans a unique experience, something that is even difficult to experience when being live in the stadium at a sport match. The key production goal is to create an engaging experience. And of course, being real sport marketers, most want to have both combined in one 360 production. Combining a real feeling of presence with a unique engaging experience. However, the question rises whether that is doable. Is it possible to add experience increasing effects to a

VR can be seen as a real or simulated environment where the participant perceives (tele)presence: “the subjective experience of being in one place or environment, even when one is physically situated in another”. It is one of the reasons why soccer organizations use VR by means of 360 recordings. As a means to visit places you can easily visit in real as well or that are very difficult to experience such as exclusive access to players and locations that you normally would not see. For instance, the Turkey national football team had a 360 camera in the dressing room and FC Liverpool, placed 360 cameras in the dressing rooms, on field, and in the hallway before the entrance. However, there are still many questions concerning how to create the best 360 VR productions. There are different VR techniques that seem to be able to increase or decrease the feeling of presence and engagement. One element

Standing in the middle of the players when they walk from player bus to the stadium

used in traditional media such as TV and in VR is the use of non-diegetic sounds. Non-diegetic sound is a sound which does not have a source on-screen such as suspense music on the background. This type of sound, like background music or voice-overs, cannot be heard by the characters as they do not exist in the same world but are edited in. It is used in traditional media such as films and documentaries to consciously and unconsciously create emotions, convey information and engage viewers in the story. And several studies have revealed these effects. However, we do not know whether non-diegetic sounds in VR will have the same effects on presence and engagement. Especially as it is a medium to create 'a reality' with different options to experience the environment compared to traditional media. Therefore, this study within the Menses project, aims to see what the effects of non-diegetic sounds are on presence and engagement of a sport experience in 360 VR.

METHOD: 3 VERSIONS OF A 360 EXPERIENCE

Material. Three conditions of a VR 360 soccer stadium visit were created of a soccer match of the English soccer team Huddersfield Town. Condition 1 contained the non-edited version, Condition 2 had a voice-over and Condition 3 had the same voice-over as well as non-diegetic music. The total VR 360 experience was created within Menses by Martin Walker and lasted two minutes (see Box 1 and www.menses.eu to experience the stadium visit). The VR experience contained the following scenes: being within the dressing room, standing in the middle of the players when they walk from player bus to the stadium, being among the fans in the stadium, being in the field when players of Huddersfield Town and (competitive team) Fulham shook hands, and several short scenes where they saw footage of the game and footage of fans. The voice-over was made by Fred Schneider who lives in Huddersfield, England. The voice-over had an emotional voice that emphasized the pride of the club. (e.g. *"We give our blood and tears into the club... be part of Huddersfield Town, no matter if we win"*). The goal of the voice-over was to create an emotional impact among the viewer by talking about the history of the team, values, players and the stadium. The function of music was to convey emotions among the audience. Music that normally can't be heard inside a real stadium visit.

Participants. A total of 52 Dutch football fans participated in the Study (aged 18-31, almost all male). They were recruited via probability sampling at the football club R.K.V.V. Roosendaal and equally divided



A HUDDERSFIELD TOWN 360 VR SOCCER EXPERIENCE

Martin Walker created within Menses a 360 VR experience of the full workings of a Huddersfield Town match day at the John Smith's Stadium. Shot from many different angles – in the dressing room, from the stands and pitch side – the 360 degree video captured the drama of a Championship game from almost every

perspective. After meeting club officials, Martin was given an access-all-areas pass for the Town versus Fulham game. Martin: "360 video has to be in the middle of the action for it to work, so that in itself is a challenge. The big benefit with 360 cameras however is no cameramen, so no nerves; people tend to forget it's there after a few seconds so then behave very naturally which makes for a great shot".

The engagement with the 360 VR experience increased when adding music to the experience

over the three conditions. Most participants knew the football club Huddersfield Town and were aware that Huddersfield Town has Dutch players as well. Participants were inexperienced VR users, of which 41 had never used a VR device before.

Design. The participants used the Samsung Gear VR head-mounted device and experienced the story as an observer (characters in the video did not acknowledge the presence of the participants). After experiencing the VR, we measured the effects using an online questionnaire. We measured presence (using 11 statements such as “I felt I was visiting the places in the displayed environment”), engagement (using 14 statements such as “I would have liked the experience to continue”) both on five-point Likert scales (1 = strongly agree 5 = strongly disagree). In addition, we measured, next to background variables, team identification based on The Sport Spectator Identification Scale (SSIS) and three attitude items (e.g. “How strongly do YOU see YOURSELF as a fan of Huddersfield Town?”) on 1-8-point bipolar scales.

RESULTS: MORE ENGAGEMENT AND LESS PRESENCE

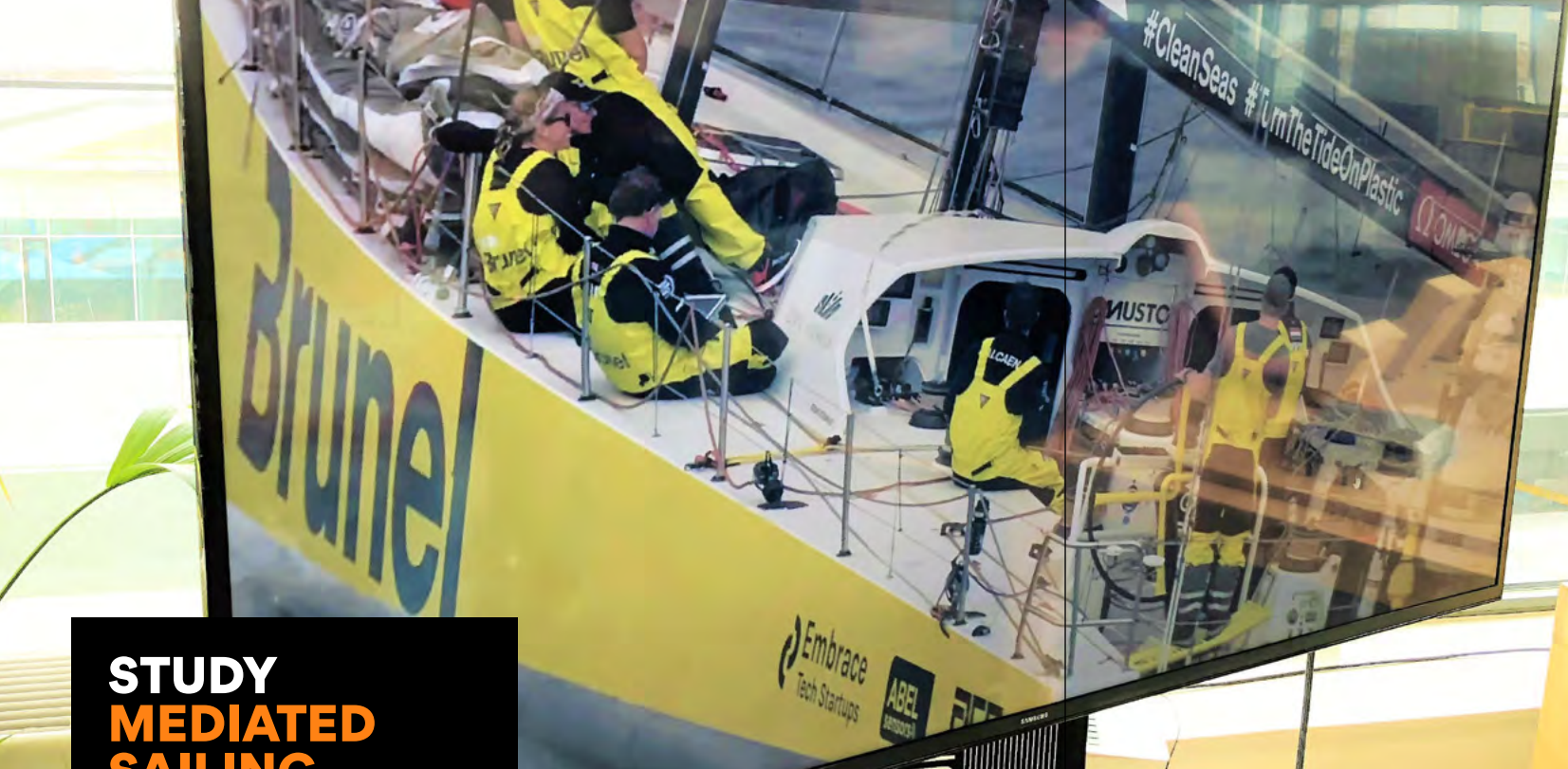
Presence: the 360 VR experience created an average feeling of presence (2.7 on a 5-point scale). The adding of a voice-over and voice-over & music did not have a strong significant effect on feelings presence. However, adding of a voice-over (presence score: 2.3) and the adding of a voice-over and music (presence score: 2.2) revealed a lower presence compared to without music and voice-over (presence score: 2.6). **Engagement:** the 360 experience was received as neutral when it comes to engagement (a 2.5 on a 5-point scale). The engagement with the 360 VR experience increased when adding music to the experience. The engagement increased from 2.4 without music and voice-over and 2.5 with voice-over to 2.9 when it had music (and a voice-over).

CONCLUSION: FEELS REAL ANYHOW

The fact that music can increase 360 VR engagement, seems in line with previous research and relates to what is known within the film industry: music creates emotion. The fact that merely using a voice-over did not increase engagement, might have to do with the fact that it is was very much aimed at the core fans of Huddersfield town, talking about pride and history in a very emotional and victorious way, creating competitive resistance with non-fans. This seems also be confirmed in the finding that the VR experience decreased the attitude towards Huddersfield Town. After seeing the VR 360 scenes the attitude dropped

with a 0.5 score. Another reason might be the lack of production quality: the voice-over was added to the 360 production for this research only. As such it was not fully integrated in the production. Meaning, as some participants mentioned, the voice-over was often not congruent with what was seen or felt, and as such distracted. As expected, the feeling of presence, of ‘being there’, dropped when voice-over and music are added to the experience. However, the decrease was only very low, meaning that the benefit of a higher engagement using music and voice-overs, might outweigh the loss of realism. An explanation of the low and non-effects of music and voice-over might also be that we are much more used to listen to personalized music throughout our lives (mainly through our smartphone’s). This means that probably a lot of fans also listen to music or voice-overs when visiting the stadium and are less affected by it being used to background music all the time. Although this study contains some limitations, ranging from a small non-UK (Huddersfield) participant group to quality challenges (in production and VR devices used) as well as being only one case, it seems to advocate a route for more enriched 360 VR experiences using ‘unreal’ elements, even when the goal is to create a real stadium experience.

* A full report (including the results on identification), literature list and the 360 experiences can be requested via www.menses.eu



STUDY MEDIATED SAILING EXPERIENCE

Using audience needs as building stones to improve sailing viewing experiences

Lawler, D., Gisbergen, M.S., van., & Doicaru, M

INTRODUCTION: ALL STARTS WITH WHAT

Consumption of sports through media has increased and expanded tremendously. Viewers can choose what, when and how to look while choosing from a wide variety of media (from smartphones to virtual reality), media consumption forms (from second and multiple screen options to extended viewing) and in different contexts (at home, in the train or in a bar or virtually between the live audience). This live sport mediated experience has benefits but also thresholds compared to attending a live event. Visiting a live sport event for instance provides communal atmosphere and presence among fans on the one hand. However it also has drawbacks such as less control (e.g., lack of replay or limited visibility), or less comfort

due to for instance plastic seats, or transportation issues. However, instead of seeing this as two separate entities, we also have the possibility to connect them, and in doing so creating a better overall experience.

New media provide new ways to communicate and add information to live events and to existing media by means of second screens. New technologies, ranging from smartphones to augmented reality glasses, make it possible to reach and engage the audience in different ways. However, it remains unclear who and what we should communicate in these media when it comes to enriching live sport experience. The possibilities are numerous as the information can be provided from a numerous of sources ranging from friends,

New media provide new ways to communicate and add information to live events and to existing media

family, (ex)athletes and coaches (from the same or a different sport), experts, the audience or famous people (e.g., comedians, stars, bloggers) that like or even dislike the sport. In addition the content consists of a wide range of possibilities, ranging from data and facts related to the sport or athletes or the sport environment, to entertaining game interactions. In addition the audiences of the live event can be connected to audiences who watch the event through the media. So besides the question how to design this second screen information, an equally important question is what should we communicate. What are the motives to watch a live or mediated live sport experience?

Within the Mediated Enriched Sport Experiences project we designed among others an Augmented Reality second screen app for the Microsoft HoloLens, to enrich a live soccer match experience (see also www.menses.eu). And students researched the needs and wants of audiences when it comes to a soccer event. However, soccer might not be the sport most in need of media data that enriches a live experience. Other sports, like sailing, might be more in need of this (see also the chapter concerning the need of new sailing



experiences). In this study we therefore reveal the needs concerning the motivation (themes) to view a mediated sailing experience, in order to use these needs as building stones to create new (technology driven) concepts to enhance the sailing viewing experience.

THE ADDED VALUE OF A (MEDIATED) LIFE SAILING EVENT

Connecting life events with mediated broadcasts, using new technologies, might provide benefits for both. Especially for sports that deal with challenges such as diminishing audiences and lack of coverage

compared to other sports. One of these sports concerns sailing. Unlike soccer or athletics, there are not numerous viewers that seem to be willing to engage with the competitions in a mediated form. Statistic from the Olympic Program Commission (2005), ranked Sailing as 24th out of 28 different sporting competitions based on popularity (measured as the amount of online page views generated on the Olympic website). In another popularity rating, sailing was placed as number 31 out of 34 sports, based on the overall importance, its uniqueness and its entertainment value to the Olympics. The decline in reach and engagement has among others to do with a narrow and old fashioned image

(upper-class sport without innovation). According to the International Sailing Federation Sailing needs to become trendy in order to attract both youth and adults in the future. However, it is unclear how this needs to be done. Although the sailing Industry has the technology, they often lack the knowledge, experience, content or strategy how to use it. It is for instance unclear what kind of mediated content (potential) sailing audiences want to experience during a live sailing event, based on the motivations they have to watch the sport.

DISCOVER MOTIVATIONS

Motivation is what makes people act in certain ways. Motivation reflects an internal state or condition (sometimes described as a need, desire, or want) that serves to activate or energize behavior and give it direction. Therefore, understanding people's motives, being the reasons for doing something, is the key to reach and engage sport audiences. Maslow's Hierarchy of Needs is one of the main theories relating to motivation and distinguishing between five different (priorities in) motivations. Murray's System of Needs forms the base of this study, as it highlights "personality variables that sample a wide range of individual differences in needs". Murray concluded that needs could exist in one of two ways- primary and secondary needs. Primary needs, called "viscerogenic", are any kind of biological need, such as food, water, and oxygen. The secondary needs, or psychogenic needs, presumably derive from the primary needs, describe the mental or emotional satisfactions, as opposed

to bodily events. The five categories of secondary psychogenic needs that Murray identified are ambition, materialism, power, affection, and information. These needs form the bases to distinguish different sailing viewer segments. These needs can reflect the sailing watcher's motivation for viewing mediated sailing events. This study aims to increase the understanding of sailing enthusiasts motivations to view mediated sailing events and as such understand how to improve the content of mediated sailing events.

METHOD: INTERVIEWS WITH EXPERT SAILORS

Design. Participants were asked to take part in a semi-structured in-depth interview, in May 2018, with an average duration of 50 minutes, on psychogenic needs and motivations to watch mediated sailing competitions.

Participants. A total of twelve international sailors were interviewed. Nine participants were qualified sailors of which four were qualified sailing teachers and instructors. One of them being an ex-Dutch Olympic sailing athlete. One participant has never sailed, but is an extensive visitor and viewer of sailing events. All participants watched at least one live broadcasted sailing race event in the year before the interview. Participants age ranged from 19 to 56 and were born in either the Netherlands, Germany, Australia, England or Laos.

Measures. The following topics were discussed: (1) personal experience with sailing, (2) motivations to watch sailing

Seeing the teamwork ... how they worktogether... how they keep the boat straight

competitions (on TV), (3) priority of motivations, (4) aspects of enjoyment of watching, (5) what is missing when watching sailing competitions. The mentioned motivations were analyzed and organized according to Murray's Psychogenic Needs structure (Ambition, Power, Materialism, Affection, and Information).

RESULTS: DIFFERENT MOTIVES FOR DIFFERENT GROUPS

Segments: The interviews revealed four types of sailing audiences: **(1)** Ambitious Mediated Sailing Watchers, **(2)** Activity Driven Mediated Sailing Watchers, **(3)** Humble Mediated Sailing Watchers and **(4)** Social Mediated Sailing Watchers. The literature review and interviews revealed the following reasons to watch (sail) sport events, namely to: (a) witness remarkable skills and athleticism (aesthetics), (b) feel the tension of competition and rivalry (drama) between opposing teams (desire to "thrill in victory"), (c) observe team strategies and capabilities and learning about the sport and game, (d) feel excitement induced by the speed of play of the game and entertainment during

the event (shows advertising), (e) display pride for the support of their team, (f) socialize with athletes, friends and enjoying camaraderie (group affiliation) with others (peers and new people) and escape (get rid of daily problems and anger), and (g) to watch as part of a tradition (family or national tradition). In addition research showed that (h) innovations within sailing can increase reasons to watch. Examples are developments that help to make the sport more understandable and close (e.g., distinguish boats and athletes by means of large country flags on the sails of boats or hosting medal races closer to the shore).

The most important needs to be interested to view mediated sailing events are: (a) achievement (providing the viewer with a feeling of needing to accomplish a greater goal), (b) exhibition (providing the viewer with amusing content to excite and thrill others), (c) abasement (providing the viewer with suspenseful, uncertain and dangerous content), (d) deference (viewers value the admiration of superior players and pursue their abilities), (e) inviolacy (maintaining the dignity of sailing as a sport by emphasizing the skill and capabilities that sailors perform at a sailing event), (5) play (providing the consumer with relaxing, amusing and entertaining content) and (6) cognizance (stimulating the cognitive needs of the viewer by expanding their understanding of the sport). Although these are generic strategies to reach and engage the sailing audience, different sailor segments can be constructed based on priorities in motivations:

Ambitious Mediated Sailing Watchers: they mainly watch for motivations of Admiration, Interest based on Curiosity,



and for Personal Development. They are ambitious because of the admiration and for attaining tactical information (Interest based on curiosity), for achieving a personal growth and development admiration based on astonishment and aspiration ("I really looking up to it...I would be really happy to be a minute in their shoes. I really want to be on that boat"). For the non-sailors this is more based on skills ("I'm intrigued and astonished and I'm blown away by the skills and capabilities of these particular sailors"), whether the sailors seem more focused

on strategy ("For example, tricks they use at the start, how they choose their best approach for that. It is interesting to see how a professional does it").

Activity Driven Mediated Sailing Watchers: most important for them are Thrill of Action, Thrill of Danger, and Teamwork. They are attracted based on the thrill of action: speed of play, the agility of the sailors and the energy within the game ("The boats go faster and are much lighter and have a much bigger sail surface than they used

to, there is that thrill of speed there”), and danger (“I like the high altitude, the big waves, the power of the sea, ...I do like when they don't die, but they had the chance of dying”) as well as teamwork (“Seeing the teamwork ...how they work together...how they keep the boat straight... like one big coordinated team”).

Humble Mediated Sailing Watchers: they watch mainly for National Pride/Individual Admiration and a Dignity for Sailing. They show a modest feeling towards professional sailors from their own countries (“I tend to watch sports quicker when Dutch athletes are involved, who are performing well”), achieving a feeling of national pride (“There is that nationalism, that pride of wanting to see your country succeed”), as well as for hero's achieving remarkable results (“Somehow have to show the skill of the sailor, that the sailor and the skipper and the crew are incredibly skillful people and they are not just handed this piece of equipment for the millions and millions of dollars knowing that just putting it in the direction that the compass says to point it in. I think that's just something they need to make sure or that comes across”). They do not like the image of sailing being an elite sport, with winning depending on money (“Leave.. all behind and just follow that dream”).

Social Mediated Sailing Watchers: are mostly involved because of the social Aspect (“I like to watch it with my dad, or in a bar with a screen”). They are attracted towards the social gathering aspect of viewing, ranging from friends, specialists and fans and with family as a tradition. Within this segment sometimes a lack of

understanding of the sport existed: “Well if I were sitting by myself in the house, I wouldn't think much of putting on a sailing race, but on boxing day, when the family would all sit down and we would watch the start of the race, and we wouldn't place proper bets but we would think about who we want to win”.

Besides the information on the motivation to watch a live sailing event, we also looked at the reasons they mentioned why new media could enrich live events. They mentioned the following reasons: media adds (a) drama and thrill due to unique perspective (point of view for instance using onboard camera's, wider field of view and possibility of close-ups), (b) storytelling and framing (reporter and/or contextual information), (c) extends and connects more audiences and fans (international scale opening venues not possible to visit), technological innovations that provide reveals (d) new 'invisible' information and allow for (e) a more honest and fair gameplay (e.g., infrared imaging referee systems such as goal-line technology).

CONCLUSION: DIFFERENT SAIL AUDIENCES, DIFFERENT EXPERIENCE MOTIVES

New technologies can and should be used to increase reach and engagement with sailing audiences based on their motivations to watch. The motivations and reasons to watch live sail sports and make use of new technologies, in combination with different sailing segments, provides a first step to create a content and communication strategy for using new media technologies

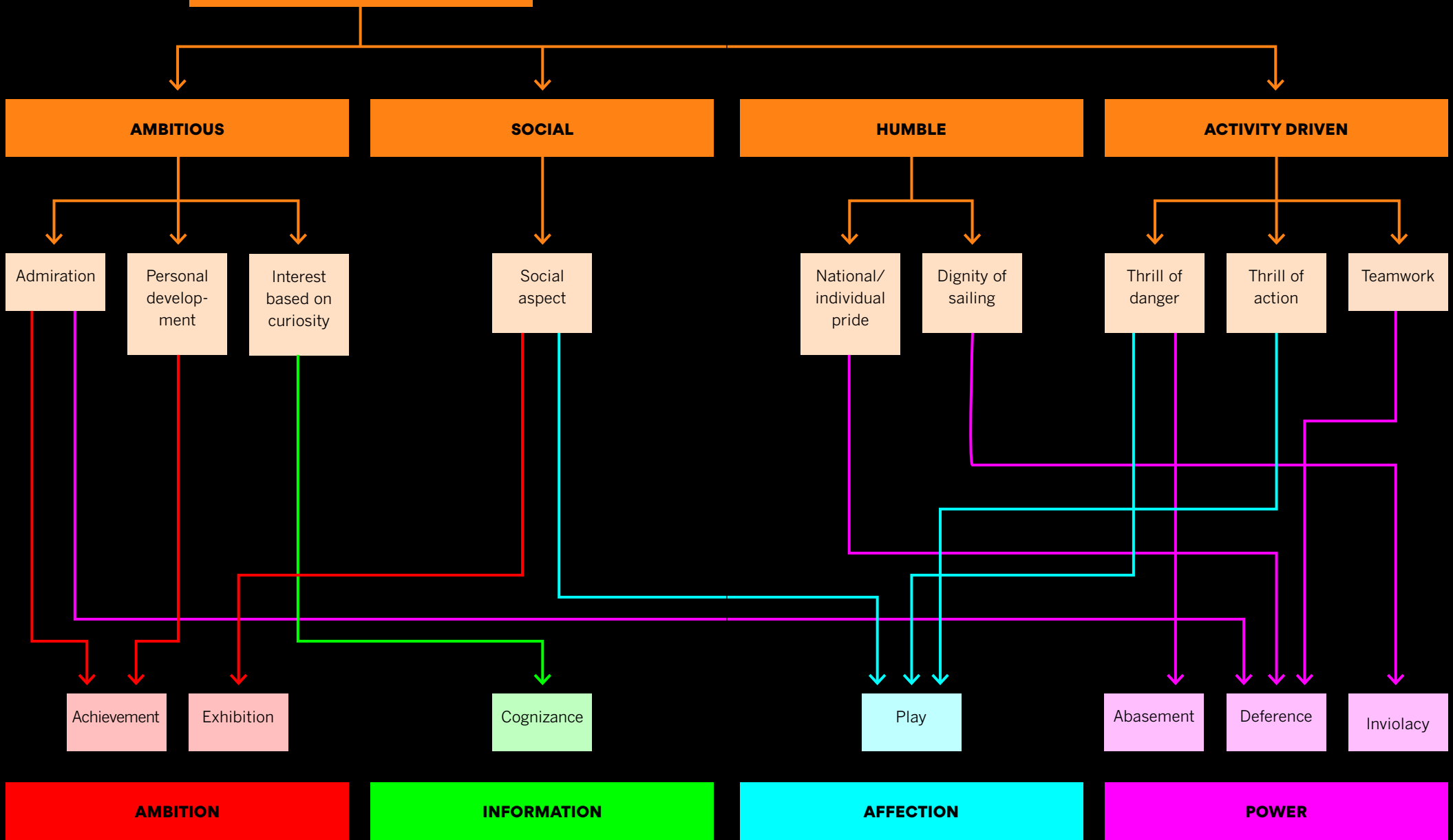
to enrich life sail experiences. The motivations can also be used to differentiate second screen technologies. The choice of concepts and technology (content and visualization) should differ based on the main type of sailing audience that needs to be reached. For instance content technology concepts could be built around the four sailing segments and the priority motivation as follows: Ambitious Mediated Sailing Watchers: technology to make tactics and strategies visible (“To be able to hear the conversations that are going on board in terms of tactics about picking up wind or currents or why they are tacking now”). Humble Mediated Sailing Watchers: create hero's through stories around persons, boats, achievements (“It's more like I am thinking of Henk de Velde or Laura Dekker, these kinds of people who just really went”). Activity Driven Mediated Sailing Watchers: add the suspense through entertainment factors such as films, sounds and close-ups (“I think it adds to the excitement. It's like an adrenaline kind of thing so you get excited by watching something that might have been dangerous if you were in the same situation”). Social Mediated Sailing Watchers: help share (amusing, thrill increasing) content before, during and after the live race (“I share it [pictures, videos, comments] when I'm around the table, a restaurant, with friends at home, a bar”). Of course the motivations and segments revealed should be quantified before being able to get a good overview of the size and exclusivity of each segment and importance per motivation. Follow up research that helps to determine relating demographic attributes and characteristics with the desired motivations is important to better reach these segmented audiences.

Volvo Ocean Race and America's Cup was viewed because of the thrill of action

In addition more research is needed in how to reach these segments and whether they vary based on type of sailing event. The participants in this research were interested in a diversity of sailing race events (e.g., Olympics, Volvo Ocean Race, America's Cup, Sydney to Hobart Yacht Race). The study showed that certain sailing competitions were viewed because of specific motivations. For instance, the Volvo Ocean Race and America's Cup was viewed because of the thrill of action and the amusing and entertaining content. The Olympics were more associated with contributing to the educational aspect as well as gaining a greater understanding of sailing, whereas the Sydney to Hobart Race was considered more of a yearly traditional gathering. However, the motivations discovered already form a good stepping stone to create a media enriched content strategy to reach and engage sailors.

* A full report (including the results on identification), literature list and the concepts derived from it, can be requested via www.menses.eu

TYPES OF MEDIATED SAILING WATCHERS





CONCEPTS AT A GLANCE

In this section we present a selection of concepts developed by students ranging from high school to master level. All concepts were conceived within the context of educational programmes of BUAs and various high schools in the city of Hilversum. Either in existing research courses and in graduation work or through case partnerships with the Dutch Institute for Sound & Vision (Beeld & Geluid) and by means of industry cases presented by companies such as United and VodafoneZiggo.



TOP CLASS DIGITAL DESIGN 2019 Designing augmented reality sports

WHAT

The professorship Media Enriched Sport Experiences provided following challenge for the students: help us develop the first Augmented Reality sport experience second screen application. The students could approach the challenge by answering (one of) the following questions:

- What AR second screen content do users want to experience when viewing live sport broadcasts? So what data do they want to receive when for instance looking at a hologram screen next to the television when viewing a live soccer match?

- How should we design this AR second screen content? How should we visualize this content (e.g., infographics, texts, images?), where should we place the hologram menu's? (near the television, near the point of view)?, and how should we interact with the content (voice control, eye-gaze, gestures?)
- Can we make it more of an engaging experience? Do you have idea's how we can create great AR second screen sport based experiences? What can we develop what people would like to do when watching sport TV (Quiz? Hide-and-Seek?, Game?)



DESIGN THINKING

Top Class Digital Design is a program initiated by the *Nederlands Instituut voor Beeld en Geluid* aiming at connecting bright ideas from high school kids (aged 14-15) with challenges from different media companies. Design thinking is central to this program. Under professional supervision students go through following steps in a 6 day program: research, concepting, design, production, and presentation. The professorship Media Enriched Sport Experiences provided cases in 2018 and 2019.

WHO

Students from the Gemeentelijk Gymnasium in Hilversum worked on the MENSES case: Thijmen Hartman, David Blokland, Jelle Boot, Lucas Lenderink, Oscar Valkering and Dennis Groeneveld

WHEN & HOW

The students presented their concept during a grand closing gala at the Institute of Sound & Vision. In a vivid and humoristic presentation they came up with various AR add-ons to make watching sports more engaging. Everything incorporated in purpose designed glasses, clearly inspired by Microsoft HoloLens® functionality. Featured applications included: (mini) games, music, recording options, statistics, user generated commentary and

In a vivid and humoristic presentation they came up with various AR add-ons

social sharing options. Thus explaining and providing insights into what kids of their age group would considering interesting. The professional jury praised the students' enthusiasm and presentation skills. They concluded the research had been thorough. And using AR-glasses as a device or means was found an surprising direction of thought as the use of AR glasses to present additional information still is not very common and far from becoming mainstream although glasses (e.g. Google Glass, Microsoft HoloLens) have been on the market for a while.



CREATIVE BUSINESS RESEARCH COURSE 2019 Concepts for VodafoneZiggo

ASSIGNMENT

In summer 2019, over 125 students started to conduct research in creating media enriched sport experiences for VodafoneZiggo. The assignment was to provide research based consultancy on how to reach Youth with new sport experiences using innovative technology. At the same time take into consideration cultural and organizational changes, such as the merger between Vodafone and Ziggo. This resulted in over 13 research reports, of which the best three presented the outcomes at VodafoneZiggo. The presentation resulted in fruitful discussions and new avenues to pursue to reach and engage youth with new sport experiences.

WHO

The research was conducted by 125 third years students of the International Creative business bachelor program at BUAs. It was part of their course Research Methods, supervised by Silke Hassreiter, Alex Martinisi and Miruna Doicaru. The briefing was created by Marnix van Gisbergen (professor Digital Media Concepts at BUAs) and Jasper Elsackers (Senior Content Strategist at VodafoneZiggo). Both Jasper and Marnix also provided guest lectures as a kick-off for this project. The final three 'best' projects were also evaluated by Raymond van der Vliet (Director Content and Programming at VodafoneZiggo).

HOW

Within a few weeks the students, in groups of maximum seven people, needed to have conducted a research within the domain of sports with a focus on live sport events (connected to) broadcast of live sport events and aimed at youth. The reports should to clear idea's for a new concept and recommendations based on the research they conducted. Next to a research report they also delivered a presentation. The best three presented their idea and results at VodafoneZiggo.

WHAT

The following research concept projects were delivered:

Understanding Experience

- Understanding experience needs of youth watching live sport broadcasts
- To what extend does storytelling extend the sport experience among youth
- Enhancing the viewer experience of youth watching Formula 1 racing
- How to increase suspense watching a live broadcast of Formula 1 sport

E-sports

- Explore how VodafoneZiggo can utilize the trend of E-sports
- VodafoneZiggo – Paving the way for E-sports in the Netherlands

Trends

- Explore new trends for enhancing the experience in sports media consumption
- Trends that enhance the experience of sports media consumption

New Media

- Soccer and Instagram stories: creating new experiences
- How interactive betting can affect a broadcasted sport experience
- How Augmented Reality might change a sport experience
- The Influence of Word-of-Mouth on intention to consume a sport program
- Giving VAR a voice: enhancing football experience
- How social media can impact a sport experience
- The effect of social media on a sport experience

Management

- How to maintain a steady position in the sports-streaming market
- How to make sport broadcast so appealing youth want to pay for it
- Finding the competitive advantage of Ziggo Sport over competitors
- Examining the motivations of sport subscribers

The different reports led to remarkable findings already. Some of which are listed below:

- “Adding positive data (graphs) of a competitor during a Formula 1 broadcast, did not increase viewer suspense”
- “Interactive AR betting does not interrupt the Formula 1 viewing experience”
- “Game based quizzes during sport broadcasts seem to increase experience”
- “Instagram stories seem to engage youth in broadcasted soccer experiences”
- “Personalize heroes during a Formula 1 race increases experience”
- “Youth still sceptical about the added value of new media such as VR, AR and



AI, to increase sport experiences”

- “On command statistics seem a good means to deal with the need of data differentiation to increase sport experiences with different groups”
- “Social media during sport broadcast important to create social experiences”
- “(e)WOM a key factor to stimulate sport viewing, traditional WOM even more compared to eWOM”
- “E-sport within Netherlands needs more professionalism on all levels, to increase reach and attention”
- “The value of adding voice to VAR is increasing peaks and avoiding dips in viewing experiences”

“Game based quizzes during sport broadcasts seem to increase experience”

- “Ease of use a main motive to pay for sport broadcast subscriptions”
- “Preference in style of commentary, descriptive or argumentative, differs per type of sport”



MMI INDUSTRY CASES

Creating concepts for Ziggo

WHAT

Students created Media Enriched Sport Experience concepts. The goal: help VodafoneZiggo reach and engage with young audiences through linear television. A real challenge as linear television loses territory in favour of on-demand content. Nevertheless linear TV remains an important part of how we watch television. As such it plays an important role in current business models in (sport) television broadcasting.

WHO

The concepts were created by 24 students from the Master in Media Innovation (MMI) program of BUAs. The brief was extra challenging as many of these MMI students are international and thus not familiar with linear TV in the Netherlands.

HOW

The students delivered the concepts within a few weeks, including a concept report. On the 15th of March 2018, the students pitched their work at the Amsterdam offices in front of VodafoneZiggo staff (among others director content and programming William Linders, senior content strategist Jasper Elsackers and senior manager public affairs Robert Kamphuis) as well as the responsible supervisors (dr. Michelle Kovacs and dr. Stavros Asimakopoulous).

The concepts created are based on interesting insights, showing that youth is:

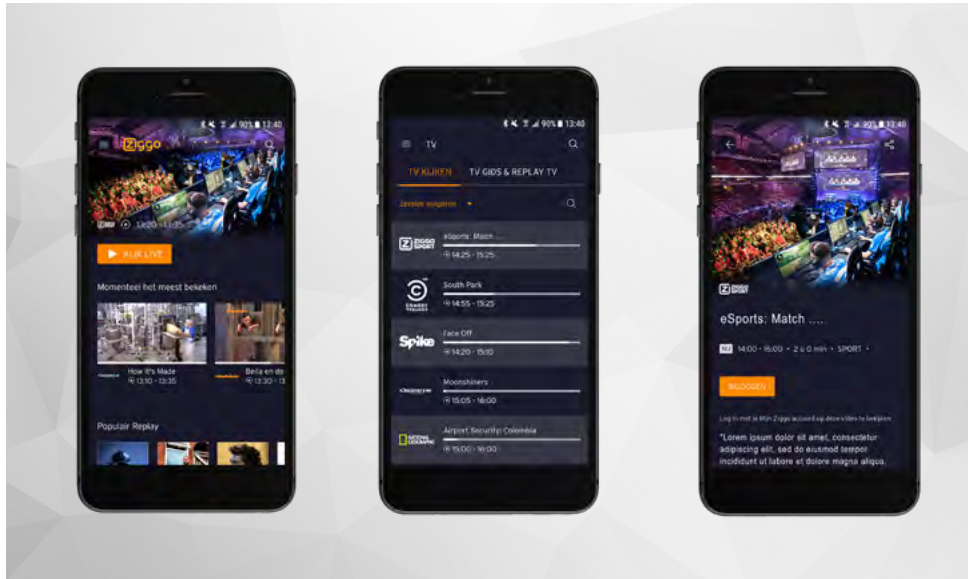
- unfamiliar with (benefits) of watching sport content through linear TV
- unfamiliar with many digital possibilities while watching linear TV sport content
- able and loves to share sport content recommendations with peers
- misses means to share and recommend sport content using digital linear TV tools
- likes to be connected with peers during TV, but prefer current social media
- cares for layering of content during live watching, but often it lacks content they like
- wants personalized dashboards/lay-out based on sport and TV experiences

WHAT

The best concept received a great price. The winning concept was highlighted as a possible concept to further develop (mixing insights from several of the concepts presented). One of the concepts – the AR second screen sports app – has been further developed towards a professional prototype within the framework of MENSES.

Two of the concepts presented are shown on the next pages:

- **E-sport on linear television?**
- **Ziggo Sport for you – A personalized 2nd screen sport app**



E-sport on linear television?

Authors: Mitja Caboni, Niels van Gaans, Thom Suurland, Chantal van Os, Anisa Lahlali

GOAL

In a world where streaming has become the new norm, linear TV has suddenly fallen by the wayside. For this reason, it is no wonder the search and investment in research on how to get linear TV back into the limelight is of great importance. At this moment, Ziggo's consumers are privy to viewing many different channels that include sports, news, and movies. These consumers are, but not limited to being, predominantly male. As many young adults are now moving online and

streaming instead of sitting down to watch linear TV, whether it be on a television or a smartphone and/or tablet, the goal is to take these viewers and bring them back into traditional TV.

E-SPORT

E-sport is short for electronic sports, a style of competition that is based around the concept of live gaming. The players and competitors are typically professional gamers who battle against each other for either a special prize or just the satisfaction of winning. This all began in 1972 when the first ever live gaming competition was held at Stanford University. The world of gaming has grown immensely since then and evolved from the enjoyment of playing the games themselves to also enjoying watching others play (2018).



With the emergence of Twitch, an online streaming website where gamers (and other types of live streamers) may live play their games and collect a following fanbase through this. The user with the most followers as of March 2018 is a user named "summit1g" who live streams himself and others playing a game called "Fortnite". The amount of followers he has generated is 2.8 million and counting and his combined views over his lifetime on this website is 206 million (n.d.). This shows what a huge amount of followers E-sports can generate and how many people are willing to watch such an event. Twitch also live streams many global E-sports events throughout the world and these too, gather many views.

In Europe there are quite a few football clubs that team up with E-sports athletes to include this as part of their official team. For example, the Dutch football team also

has an official E-sport representative for the FIFA game (2016). In the US, basketball teams are catching on and adding E-sports into their resume of activities that the team participates in (Heitner, 2017). FIFA, in fact, is a prime example of how franchises have made their mark in the E-sports world. This is happening more and more in other games as well, such as League of Legends (Heitner, 2017).

Few websites and mainstream news outlets have caught on to the growing concept of E-sports and have even added special sections on their websites. An example of this is ESPN, one of the most respected sport news outlets in the world. The news about this subject is immense as it is something happening 24/7 all around the world. It can range from a small, friendly competition between two or more friends to a large event with hundreds of participants.

Yet, compared to the amount of fans of the English Premier League – 2.3 billion – it is miniscule

No matter the content, the fanbase is still there and the world of E-sports is still growing rapidly. There is no telling where it might go next (2016).

CONCEPT

The concept that arose from the meetings with the Ziggo team and our own creative team is that of an eSport channel on the Ziggo network. The channel would showcase live gaming events, as well as other content. These would be events hosted and broadcasted by Ziggo themselves, some of them in the Ziggo Dome. The concept that arose from the meetings with the Ziggo team and our own creative team is that of an eSport channel on the Ziggo network. The channel would showcase live gaming events, as well as other content. These would be events hosted and broadcasted by Ziggo themselves, some of them in the Ziggo Dome.

Since the E-sports community is quite international, the events would be broadcasted in English but would feature Dutch commentators. There are currently

already established E-sports channels in the US and the UK – such as GINX TV on Sky. Prior research confirms that these programs and segments would add great value to the channel as they are trending in consumer appeal. There is certainly a rise in E-sports gaining traction on linear TV. Bullock (2017) reported that the total global audience of E-sports is approximately 385.5 million at the point of when the article was written (July 1, 2017). Yet, compared to the amount of fans of the English Premier League – 2.3 billion – it is miniscule. That is why (Bullock, 2017) suggested that the switch from online to mainstream TV is the exposure needed in order to gain more traction to the sport. The CEO of Sky Network in the UK reported that the emergence of GINX TV – a 24 hour E-sports station – has brought a whole new audience to the sport as it builds but also gives core fans a fresh and new perspective (Bullock, 2017). In addition, The Netherlands is particularly a great location to introduce this channel to as it is a country with a growing E-sports fanbase as well as player base. Ajax – a football club sponsored by Ziggo itself – already has an official E-sports representative. Ziggo may use this as a stepping stone to creating something bigger and more impactful.

A dedicated Ziggo eSports Channel will be created, which will feature the following programs:

- Coverage of the local tournament scene
- Charity celebrity show matches
- eSports History pieces / Documentaries
- eSports News
- Tips & Tricks Segments

More on www.menses.eu



Ziggo Sport for you – A personalized 2nd screen sport app

Authors: Lucia Reiter, Clara Mlozi, Piet Frankefort, Klara Obermair & Heleen van Geelen

This concept is created to enrich the experience of linear (sport) TV. By creating this application new technology features were integrated and social aspects were considered to make watching TV into a new personalized experience. This application can be seen as a replacement of the existing application 'Ziggo Sport Totaal'.

WHY

In 2016, Ziggo has the largest market share in the Netherlands with 52%, followed by KPN with 29% market share which makes them the market leaders (Albrecht, 2017). Nevertheless, Ziggo's strength in the industry is its undisputed domination in the sports category. Ziggo's largest clientele base is interested in the sports service. In 2015, Ziggo focused on the Ziggo sports brand which exclusively available to subscribed Ziggo users and the rebranding the Ziggo Sport Totaal which available to non-Ziggo subscribers. (More business analysis on request).

Viewers want to share experiences and in-depth information with their friends and family

family (Greenwood, 2014). This main goal, and five needs, are incorporated within the concept. The concept bundles several social features in one place which makes it easy to navigate and meet the end goal of sharing the spirit of the moment in an easy way.

HOW

See illustrations on the next page: 'Scenario: Ziggo Sports for you at home' and 'Scenario: Ziggo Sports for you in public'.

WHAT

The app encompasses seven major features, available for every sports game on linear television. The seven features are Match Overview, Team/Player Overview, Game Statistics, Game Highlights, 360 view, Barcode Scanning and Game Voting.

Match Overview: In the match overview the user is able to view the (live)match on their mobile device. The starting time, channel and general game description is included here.

Team/Player Overview: Here the user is able to gain an insight into the current team line-up. For solo sports, this is replaced by an overview of the players.

Game Statistics: When opening the game statistics, the user is able to view the statistics of the game. For football this includes elements such as goals, offsides and yellow cards. These statistics can also be shared with friends (WhatsApp, Facebook Messenger, MMS and Email).

Live sports is an important reason for linear TV (Kantar Media, 2016). Sports programs accounted for 93 of the 100 most viewed broadcasts in 2015, compared with only 14 ten years earlier (The Economist, 2017). Within this concept we try to play within the development of TV becoming from a passive "lean back" experience to an active "lean in" experience that adapts to the individual needs of a viewer (Liassides, 2015). A change from a pull to a push medium, but still with low effort. An important activating development is the use of second screens while watching linear TV. Over 75% of TV viewers makes use of some form of second screen device (Greenwood, 2014). The most important second screen activity seems related to social needs: texting while watching TV. This is based on five motivations: (1) communication about the impressions of a broadcast; (2) information sharing and seeking; (3) feelings of co-viewing; (4) curiosity about others' opinions; and (5) program recommendations (Han & Lee, 2016). All five deal with the social aspect of linear TV. Viewers want to share experiences, and in-depth information, with their friends and

HOW

SCENARIO: ZIGGO SPORTS FOR YOU AT HOME

Mark is sitting at home, ready to watch the next football match of his favorite team

While waiting for the match to begin, he checks the game overview and which players will play

The match is about to start, Mark is using the 360 function to get a feeling of the stadium while waiting for the match to start officially

While Mark is watching the game on his television he receives a message from his friend who wants to know what the status of the match is. He uses the app to share all the statistics of the match with one click

His favorite team just made a goal, even though his friends are not there to cheer with him he is excited.

He quickly grabs his phone to share that exciting moment of the match with his friends through the app.

SCENARIO: ZIGGO SPORTS FOR YOU IN PUBLIC

Mark is sitting with his favorite friend in his favorite pub where they are watching a football match

While watching the game Mark notices the symbol for the scanner in the app. He quickly grabs his phone to scan the screen

His friend needs to go to the restroom for a minute, hoping he doesn't miss any action

While his friend is away to the restroom a beautiful goal is made by their favorite team

The moment his friend arrives back Mark tells him what happened and shows the recap of the goal that was made on the app

After the match, Mark and his friend start discussing about the match and grab their phones to each vote on their favorite moments and see the outcomes

The TV consumer will be more in control as they engage in multi-screen viewing

sponsor. The broadcasted game will include a digital barcode or watermark which is invisible to the human eye but can be detected by mobile devices. This technology currently exists and is being practiced by companies such as Digimarc (Digimarc, 2017). This scanning feature adds an element of gamification to the linear TV experience.

Game Voting: After the game has finished, the user is able to vote on their favourite moments of the game and invite others to do so as well (share button). For football this includes elements such as Best Goal, Best Save and Best Assist. The total nationwide votes can be viewed by the user. Additionally, these user votes are incorporated into the match summary on Ziggo Sport (linear television).

WHO

According to Nielson's (2017) 66% of adults between 16 and 34 and even 89% of adults over 35 years watch traditional linear television. However, according to Global Media & Entertainment Center (2013), the TV consumer will be more in control as they "engage in multi-screen viewing. They will consume many streams of relevant and irrelevant data while watching television" (Room214, 2014, p.1). As such, the target audience of this concept are viewers in the age between 16 and 55. The application wants to address sports enthusiastic with an affinity for technology.

The primary and secondary persona of this product are represented on the persona posters on the next page.

Game Highlights: The user will be able to view game highlights almost instantly. The speed of which the highlights will be available depends on the connection speeds of the user and of the broadcaster. Each highlight can be shared with friends.

360 View: In order to get a sense of the atmosphere at the sporting event, the user is able to view the game surroundings in 360. The game surroundings can be the football stadium in football or the ski slope in skiing. Ideally, this will be broadcasted live as well but technology as it stands now will most likely result in a delay of a few minutes.

Barcode Scanning: With the barcode scanning feature, the user is able to use their mobile device to scan the television screen in order to gain access to special offers from the game sponsors. The user will be redirected to a webpage owned by the

PERSONA'S

The primary persona

The second persona



MMI INDUSTRY CASES Concepts for United

The main objective was for these industry cases was to research the market for exciting broadcast opportunities for E-sports. Based on the research students produced an innovative conceptual E-sport broadcast format. The concepts needed to take into account the goals and means of United, the dedicated industry partner of the assignment. United is a broadcasting facility service provider serving national and international customers in the TV and media production industry.

WHO

Eight students of the Master of Media Innovation Executive program 2018 worked in two groups on the E-sport concepts. Twenty students of the Master of Media Innovation Regular program 2018-2019 worked in four groups on the E-sport concepts.

WHEN

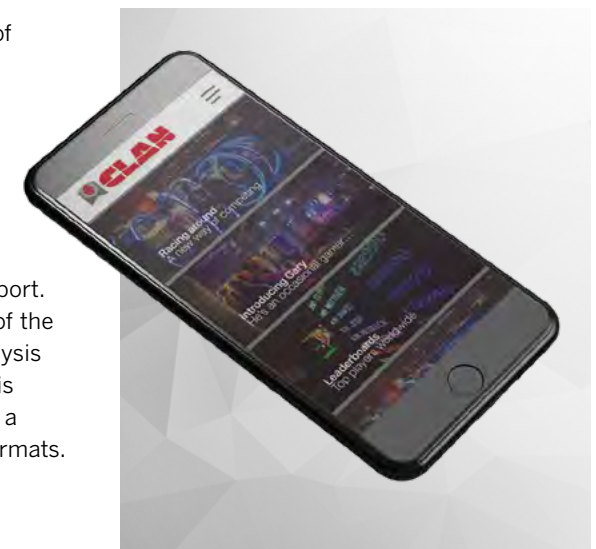
On 25th of August 2018, students pitched their concepts in Hilversum at OldSchool Projects (BUAs educational venue for the Executive Master of Media Innovation program until 2018).

On 26th of February 2019 students of the regular master program pitched their concepts at United's Hilversum headquarters.

WHAT

Pitches comprised a Powerpoint presentation and market analysis report. The report included (a) an analysis of the existing E-sports market, (b) an analysis of the target audience, (c) an analysis of existing E-sports formats and, (d) a prediction of E-sports market and formats.

Reports can be found through www.menses.eu.



“IDEAS WERE REFRESHING AND OUT OF THE BOX”

Jeroen van Rossum
United



Who are you and what is your role at United?

“Jeroen van Rossum; Manager Business Development”

United has presented two business cases to BUAs master students. What's your general experience working with the students?

“Although there was no intensive contact with the students, I think the students take their assignment very seriously. The presentations are well prepared and well presented. For next time a more thorough background check of the position in the specific value chain of a company, could help in getting concepts that better fit in the profile of the company. Nevertheless ideas were refreshing and out of the box. They studied the market enough to come to proper concepts.”

Several concepts have been developed by BUAs students in the area of E-sports? Why E-sports? What's the importance of E-sports for a company as United?

“E-sports is not much different than other sports. For United it is just something that needs to be recorded or broadcasted live (on TV or online). Of course it is technically more challenging to display the game that is being played, but that is not perse an issue. So it is as important as other sports events.”

In what manner has being a case partner contributed to the (research) questions and developmental goals of United?

“Re-thinking our position when it comes to (in this case) E-sports. Could open our eyes in looking differently to our company.”

Has any of the concepts led to implementation or further development by United?

“Unfortunately not.”

Anything you wish to add?

“If we could have more influence on the topics these sessions could be even more

valuable. The problem at United is to make it important enough and find the time to give enough support to BUAS and the students.”

FUTURE STEPS

Many of the great concepts and ideas that have been generated over the course of the two years of existence of MENSES as a professorship, will live on within BUAs in research performed in the Experience Lab and will be studied or further developed in the minor E-sports.



BUAS LAUNCHES MINOR PROGRAMME IN E-SPORTS EVENT & MEDIA MANAGEMENT

BUAs is the first institute in Dutch higher education to offer a minor in the field of esports management. Buas recognizes E-sports' great potential and has its sight set on becoming a long-term educator for this burgeoning industry.

BUAs is the designated institute to launch the minor Esports Event & Media Management. Its expertise in the domains of games, concept creation, imagineering, experience design, event management, marketing, branding and media design

makes it the perfect candidate to pioneer a unique brand of E-sports teaching. The minor's overall learning objective will be to teach students about the ins and outs of the E-sports industry itself and to develop the competencies necessary to manage E-sports in its many forms. Moreover, students are challenged to create, manage, and innovate in such a way that they can be the link between different domains in order to create a blended (online and on-site) experience. The minor has started in September 2019.

E-sports is growing worldwide. It is expected that the income generated by E-sports will be 1,650 million dollars in 2021. The Netherlands is also witnessing a rapid growth of esports. In 2018, the Netherlands had over 1.8 million visitors watching esports competitions online. Popular esports events are Rotterdam Games Week (Dreamhack Rotterdam), Tweakers Gaming Live, Dutch Comic Con, CampZone and Frag-o-Matic.

LEARNING COMMUNITY

For the first round only students of the domains of Media and Leisure & Events participated in this minor programme. This was a deliberate choice. In the future students from other educational institutes and backgrounds will be admitted to this minor as well.

BUAs will embed the minor programme in a learning community in which students, knowledge institutes and the industry exchange knowledge and develop new innovations. The E-sports industry is going to play an important part as a partner in this learning community. One of the advantages of this learning community is that all stakeholders will invest in the learning process for the long term. Such long-term commitments lead to developing networks with strong ties between educational institutes and the industry, making it possible to together shape the leading E-sports managers of tomorrow.

More information: www.linkedin.com/company/minor-esports-event-and-media-management

“It is very special that we are the first education institute in the Netherlands to offer the minor E-sports Event & Media Management. We play a pioneering role in higher education, with an offering that distinguishes itself by its small-scale and high-quality programmes. By working closely together with companies, we are able to spot trends at an early stage, and respond to them quickly.”

Elisabeth Minnemann, President of the Executive Board, is proud of the fact that BUAs attracts E-sports to Breda

BEECON

On December 3rd 2019 the first Breda university of applied sciences E-sports and Education CONvention (BEECON) was held as part of the new minor E-sports. BEECON was all about connecting the students, staff, industry and E-sports experts together to look at the future of the E-sports industry. During the convention, multiple World Cafés were hosted, where industry, students, staff and alumni all actively collaborated to gain new perspectives and insights regarding several key questions regarding the E-sports industry and the minor program.

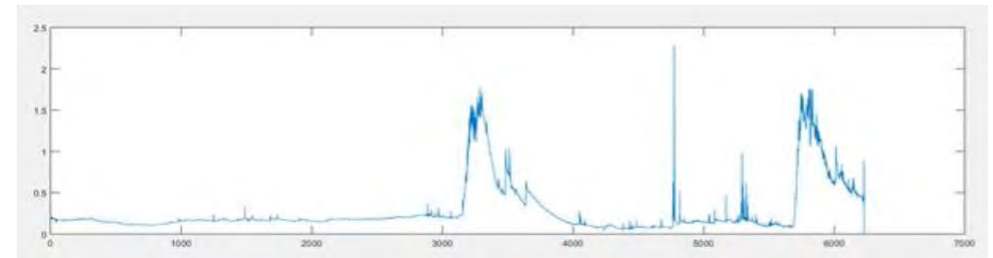


DESIGNING, MEASURING AND MANAGING EXPERIENCES

Designing, Measuring and Managing Experiences (DMME) is the flag under which researchers from all domains and areas of expertise work together at Buas on 'the creation and measurement of experiences'.

These can be the engaging experiences of digital gamers, the visitors of leisure events, the experiences of tourists in a city or tourist hot spot, the experiences of customers of hotels or tourist attractions.

DMME provides the expertise and the shared lab facilities for multidisciplinary research beyond the eight domains. The Experience Lab opens its doors in 2020 on our brand new campus. It has ideation material from LEGO® SERIOUS PLAY®, and state of the art lab facilities to measure emotions, brain activity (EEG), wearables for biosensing, eye and motion tracking.



Experience Lab: measuring E-sport experiences through Skin Conductance

The Experience Lab uses experience measurement for evidence based evaluation of experiences. Aim is to evaluate and optimize existing experience designs, evaluate design interventions, guide novel experience designs and develop experience theory. The Experience Lab provides knowledge and tools in how to measure (sport) experiences, taking observation of changes with the body as a main focus. Skin conductance, measuring sweat using wearables, is one of the means used to measure experience levels. Together with Marcel Bastiaansen, Wilco Boode and Wim Stribosch, we used skin conductance to measure how students of the minor E-sport, experience a 360o recorded E-sport event.

Skin conductance has been used as an established measure of emotional engagement

SKIN CONDUCTANCE TO MEASURE EXPERIENCE

One of the tools we use is **skin conductance measurement**. Skin conductance has been used as an established measure of emotional engagement. How does it work: the brain generates emotion, based on a certain type of stimulus yielding to particular emotional responses. Nervous system **triggers sweat** glands on braces, hands, ankles and feet. Hands and feet become slightly wetter. Sweat contains ions (from salt solution). Ions in a solution have higher conductivity as compared to "dry" skin. More current gets passed between two electrodes placed adjacent to each other. Ideally, separate emotions spark clearly identifiable peaks in skin conductance. However, there are also drawbacks: Skin conductance has been used as an established measure of emotional engagement, In order to go from skin conductivity to the nervous system activity, and hence know what events trigger which emotional response, complicated statistics and mathematics are needed, called signal deconvolution in which we distinguish between tonic drivers (long-term variations in skin conductance) and phasic driver (short-term event-related responses).



What within an E-sport 360° recording makes the E-sport heart tick?

However it also has some drawbacks such as being unclear *which* emotion is happening, complex mathematics are needed for analysis (even compared to measures from the face/respiratory system/heart) and we get ‘false data’ (motion artifacts), especially if someone moves around a lot.

HOW SKIN-CONDUCTANCE REVEALS A BROADCASTED E-SPORT EVENT EXPERIENCE

Together with the E-sport minor students the experience lab set up an experiment to measure differences in experience between watching a 360° recording of an E-sport event on the laptop versus through Virtual Reality glasses. The key question was whether putting on VR glasses, which to some degree is an effort for the viewer, creates and added value to the experience. We uses ten Empatica wearables to measure skin conductance and several Samsung Virtual Reality glasses to experience the E-sport event in VR. Students were able to analyze their own data and learned to create an aggregated experience score and pattern to compare the two conditions. They needed to use the experience data to create an experience score, peak and low ends and discover experience patterns and in doing

so formulate a recommendation in what within a E-sport 360° recording makes the E-sport heart tick and whether or when the VR glasses have added value.

MEASURING SPORT EXPERIENCE IMPACT

The coming years we will try to create a better understanding of (how to measure) sport experience impact. In doing so we need to obtain a better understanding of the different facets of sports experiences, and to develop measurement instruments that can establish the impact of technological additions on how audiences evaluate sports experiences. More precisely, the idea is to better understand from an audience perspective **(a)** what a sports experience entails, **(b)** how to measure a sports experience in a consistent and uniform way across different sports events, **(c)** to create a sports experience impact measurement tool that is able to benchmark and monitor changes in sports experiences across time and **(d)** to create and test a measurement tool that is able to monitor the impact of experience design interventions through added technology. These impact measurement tools can subsequently be used to evaluate sports audience experiences, and the results of innovative design interventions are then aimed at determining (I) how an experience booster has an effect on the experience and (II) how this in turn impacts audience behavior. Hopefully we will be able to answer these question the coming years where we might join forces and the experience lab meets your media enriched sport experience goals.



MEDIA ENRICHED SPORT EXPERIENCES

THE POWER OF A JOINT VENTURE

The professorship Media Enriched Sports Experiences is a joint venture between Breda University of Applied Sciences, VodafoneZiggo and the City of Hilversum with its seat at the Mediapark within the context of Hilversum Media Campus