

KODAK F

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PORTRA 400

KODAK **WHAT'S NEXT**

CAPTURING FIFTEEN YEARS IN THE FUTURE



EXECUTIVE SUMMARY

A BRIEF SUMMARY OF THE REPORT

The UK's conventional family unit has seen a shift over recent years; spending time together as a family has become harder due to unavoidable circumstances such as work or illness.

Kodak is a technology company that has traditionally focused on imaging for graphic arts, printing, publishing, and packaging. Whilst photography is still relevant, the digital age has eroded the need for stand-alone cameras and printing. Kodak needs to find a way of

remaining relevant to future consumers. To achieve this, Kodak needs to not just capture moments, but create them.

Through creating shared moments and memories, Kodak has an opportunity to explore ways of reconnecting families and making positive social change for the future.

This report aims to explore the story of Kodak and the future possibilities for the brand.

KODAK COMPONENTS



PROBLEM AREA

TIME SPENT TOGETHER IN MODERN FAMILIES

Modern families are becoming increasingly fragmented and diverse.

Our rapidly evolving world is affecting our domestic lives and as a result, there have been shifts in the family structure and how its members interact (MindShare, 2017).

Spending time with family has become harder. UK families now spend less than seven hours doing a shared activity together per week (Bassetts, 2017).

Almost 50% of parents with children under 18 said they were truly 'desperate' to spend more time together (Bassetts, 2017), but are unable to due to unavoidable factors, such as work or illness.

This project aims to explore the unavoidable factors that cause families to spend less time together, and suggest ways in which this could be combated through design.



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FAMILY HISTORY

THE EVER EVOLVING NOTION

Today there is no set definition of a 'family'. With single parent homes, varying family structures and fewer children, the modern family defies categorization. Initial western culture considered family to be those related by 'blood' yet slowly over time that notion has evolved.

If you look back around 200 years, the UK's traditional family comprised of a heterosexual marriage and 7+ children. Yet just 57 years later we introduced divorce (1857), and by the 1900's the number of children per home had halved. Finally, by 1970, a single parent home was a common choice rather than just consequence of being widowed.

Constant change is all that remains consistent for families across the globe, as working mothers are the norm, marriage rates are dropping and same sex marriage is common. These changes all came about due to economic development.

← **1800**

← **1857**

← **1900**

← **1970**

← **2010**

← **2020**

FUTURE FAMILIES

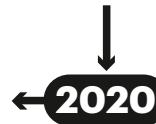
WHATS HAPPENING TO US

As the world develops, families are adapting to new tasks and activities. Currently this is causing families in the UK to spend less than seven hours of quality time together per week.

Due to economic pressures, 1 in 3 families have both parents in a full time job and nearly 2 in 5 parents miss out on saying 'Good night' to their children because of it (Working Families Index, 2018).

According to a survey by Bassett's Vitamins, the largest barriers to spending time as a family are busy work schedules, homework and technology. Factors such as these, if left unaddressed, could create negative consequences for the family unit.

The economic pressures on families and technological advances show no signs of declining. With the global population predicted to rise to 8.7 billion by 2035 (Europarl, 2018), families of all shapes and sizes will be looking for ways to communicate and connect.





FAMILY BONDS

THE IMPORTANCE OF CONNECTING

What does it mean to connect? Feeling connected is about the emotional bond you hold with a person. Since the beginning of modern psychology, theorists have emphasised the importance of connecting with others (Johnson, 2008). This has been supported by Mother Theresa;

“Being unwanted, unloved, uncared for, forgotten by all - I think that’s a great hunger, a far greater poverty than those whom cannot eat”
- Mother Theresa

Strong human connection has been proven to support brain development, strengthen a human's character and help build one's empathy and compassion. Within a family those connections are significantly affected by quality family time – that is, the time that the parents and children spend together. Without quality time all family members will suffer. Other relationships may endure hardship and wellbeing declines. Parent - child relationships are highly important, creating principles for the child to live by in the future.



ABOUT KODAK

SHARE MOMENTS, SHARE LIFE.

Kodak is a technology company focused largely on imaging. Kodak provides software, hardware, consumables and services to customers in graphic arts, printing, publishing, and packaging, to name a few. They have always been at the forefront of innovation.

Kodak has been a household name since 1888. With the company starting out under the name of their founder, George Eastman. Kodak is renowned for its uncompromising quality and innovation, Kodak is responsible for many of the worlds firsts, like the first digital camera, and the first coated film for motion picture use.

Kodak is trying to move with the times, becoming increasingly sustainable with 65% of their waste being diverted

from landfill and into recycling. We wish to maintain these strengths, as we move to stretch the company into new terrain, whilst improving on the companies weaknesses.

As companies move away from the development of film photographs, we will help to prevent Kodak from becoming irrelevant in the modern day. We will re-brand Kodak as the innovative brand that it was once known as.

In recent times Kodak has sold its branding to companies such as Primark, we need to ensure that the brand continues to align with our values, and doesn't become synonymous with other companies.

BRAND HISTORY

- 1879**
George Eastman obtains a patent on his plate-coating machine.
- 1888**
The name Kodak is born along with the slogan: "You Press The Button - We Do The Rest."
- 1896**
The 100,000th camera is manufactured
- 1901**
Eastman Kodak Company of New Jersey is formed
- 1919**
George Eastman gifts roughly 1/3 of his Kodak Stock to employees
- 1929**
Introduces its first motion picture film designed for making movies with sound tracks.
- 1975**
Invents the world's first digital camera. **10**
- 1980**
Enters Clinical Diagnostic Market.
- 2005**
Kodak is ranked Number 1 in U.S digital camera sales.
- 2012**
Kodak embarked on a series of changes to focus the company on commercial markets.
- 2017**
Kodak releases new Kodachrome Magazines.
- 2019**
Kodak is producing film, digital cameras, 3D printers and clothing.
- 2025**
Kodak researches further into family connections and begins to publicize their new direction.
- 2035**
Kodak launches a new range of products focusing on connecting families.

SWOT ANALYSIS

Strengths

- World class R&D
- High quality, visionary products
- 7500 imaging patents
- 6000+ employees
- Global pioneer in digital imaging

Weaknesses

- Bankruptcy hurt brand name
- Patent law brand damage
- Afraid to push the boat out

Opportunities

- Gaps in the Asian market
- Evolution with 3D printing
- Patented tech appeals to market
- Long life cycle and high quality

Threats

- Rise in digital photography
- Reduction in use of printing
- Recent products have failed
- Cheaper technology available

VALUE TRANSITION

HOW OUR VALUES MATCH KODAKS

CURRENTLY KODAK'S VALUES REPRESENT THEIR CORE BELIEFS, SERVING TO UNIFY & INSPIRE AS THEY MOVE TOWARD BECOMING A MORE AGILE, CUSTOMER FOCUSED & INNOVATIVE COMPANY.

Creativity.

"Whether it's developing a new patent, a new process or a new product, we all can be creative."

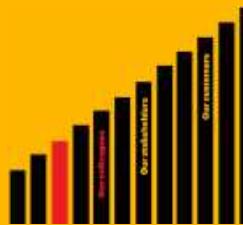


Global.

"Kodak has been global from the beginning. We embrace the diversity of human experiences, backgrounds, mindsets and cultures."

Trust.

"Respect, decency and equality are woven into our culture. To succeed we must trust each other, and be worthy of that trust!"



Sustainability.

"We define sustainability broadly — from eliminating waste with SONORA to keeping film alive to helping customers create businesses that last."

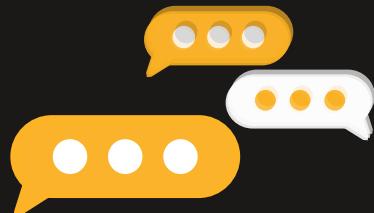
FUTURE VALUES

WHAT WE BELIEVE

AS THE BRAND EVOLVES OVER THE COMING YEARS WE AIM TO INCORPORATE KODAKS CURRENT VALUES WHILST BRINGING IN OUR OWN BELIEFS.

Imaginative.

Creating new forms of communication between loved ones.



Honesty.

Hiding nothing. We aim to always communicate with our consumers.

Inclusivity.

Providing everyone with the opportunity to communicate however they feel necessary.



Sensitivity.

Understanding some people struggle and supporting them when they do.



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MARKET ANALYSIS

CURRENT SOLUTIONS

There are currently some solutions that address the issue of communication, such as the Facebook Portal, a hands-free wide-field view camera.

All common solutions are based around giving a better experience via an improvement to audio and visual quality, making you ‘feel’ like you’re there in the room. Wearables like the Apple Watch allow you to send your heartbeat to someone and mood trackers that can inform other of your unhappy nature so they can chat to you or come over.

There are other companies that have tried to replicate the feeling of a hug. This is either by a large pillow that squeezes you or even a jacket that heats up and applies pressure to your torso.

Just improving upon audio and visual communication isn’t enough.

Some products have tried to replicate the smell that is unique to a loved one.

Furthermore, the world of robotics has enabled those who are bed bound to have an active presence in class, outdoor, and home.

Hospitals and care homes has also implemented humanesque robots to provide care, assistance, and companionship to those that they deem need it most.

The issue with the majority of products is price. An effective piece of equipment will cost £100 plus.

We have deemed this an area that is in dire need of improvement. The current solutions do not satisfy problem and the price of these is too great to make it viable for everyone. A shift in communication technology is needed.

BRAND COMPETITORS

Kodak is one of the leading brands in the consumer electronics market. It is 'a top of the mind brand for photography & digital imaging' (mbaskool, 2019). Although Kodak is a highly successful company it faces a few threats; the rising digital space could reduce the consumer need for Kodak and other brands may take the lead.

The intense competition from global and national companies is the major threat to the existence of Kodak. Consumers are becoming more comfortable with using mobile devices that come with high quality cameras. Therefore, they are less likely to carry an extra device to capture moments. These factors emphasise the need for Kodak to move into a new market segment.

Canon
Casio
Nikon
Sony
Pentax
Panasonic
Fujifilm
Olympus
Samsung



KODAK'S FUTURE

WHERE WILL KODAK BE IN 2035?

Kodak's brand values will be built upon to reposition and carry them into a new market segment. It is predicted that Kodak will continue to produce 'consumables and services to customers in graphic arts, commercial print, publishing, packaging, electronic displays, entertainment and commercial films' (Kodak, 2019). However, they will expand into a range of devices to connect families across the globe. There are currently very few products that allow families to connect and create moments of joy when they are apart.

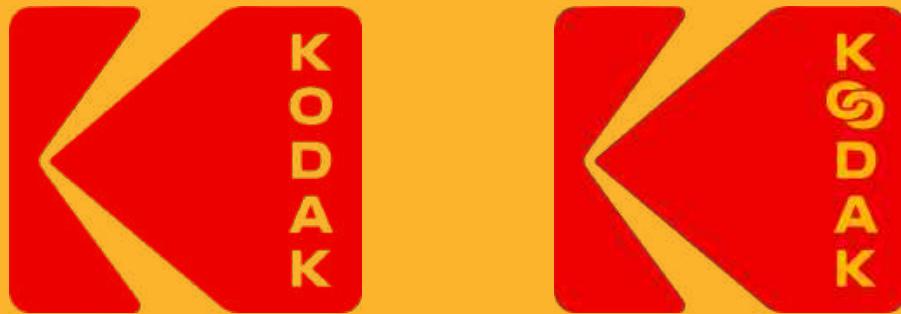
With their first range of products focusing on connecting families, there is scope for Kodak to continue to connect and curate further relationships in the future.

In discovering Kodak's approach to capturing moments and creating hobbies, this is the perfect route for them to take. We want people to continue to capture and create special moments, despite the increase in technology. We aim to increase the quality time spent with family, a highly important factor when marketing our products.

We hope to welcome families who feel that their communication and time spent together is lacking. Kodak will target families who are struggling to be together due to illness, work or travel. A lack of family time can affect all those within the family; we want to ensure moments of joy are possible even when time is limited. The products should be integrated into the users' everyday life to increase family moments.

DESIGN OPPORTUNITY

HOW CAN KODAK AS A BRAND ADDRESS THE PROBLEMS CAUSED BY A RESTRICTED AMOUNT OF TIME SPENT TOGETHER AS A FAMILY?



Families are becoming increasingly anxious about the lack of time spent with their loved ones. It is not always possible for families to increase the amount of time spent together, so it is therefore of huge importance that the time they do spend together is treasured and enjoyed. Kodak is in the perfect position to address this.

Not only will Kodak capture special family moments, but it will also

help create new moments of joy through design solutions suitable for the families of the future. These solutions will either help families make the most of time spent together, or help them feel more connected when they are apart.

With Kodak's new focus on connecting families comes updated branding using symbolism to emphasise the importance of connection (see *logo above*).

RUBY OVENDEN

HOW CAN KODAK HELP FOSTER CHILDREN FIND A SENSE OF BELONGING WHEN BUILDING A CONNECTION WITH THEIR NEW FAMILIES?

PROBLEM DEFINITION

As population rates increase so do the number of children in care, reaching a 10 year high of 75,400 in 2018 (Gov.uk,2018). At £56K per child annually it is not surprising that Local Government Association found that 88% of local councils overspent for children's services in 2018. If this rate continues LGA predicts there will be a £3Bn funding gap by 2025. As this funding gap grows resources become limited and that reduces the local councils ability to rehabilitate children.

PERSONA

AGE 5

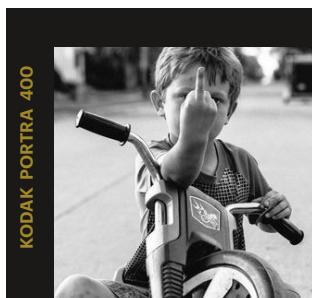
STATUS Fostered

LOCATION Kent, UK

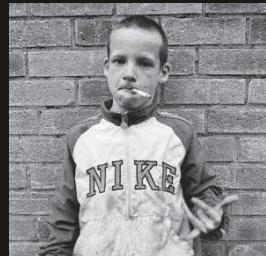
OLD FAMILY Single mother, One sister

NEW FAMILY Foster parents

Sam has just been placed with his foster family, he has just turned 5 and entered the system 4 months ago after his single mother suffered a recent relapse and the local council reported the living conditions as detrimental to his health. Not only is this new home difficult but it has also come at an important time in Sam's life, he is currently in his first year of school. As Sam tries to make new bonds at school he can't help but notice everyone else is being picked up by their mums and dads, this causes a lot of confusion and emotional distress as he regularly questions his foster parents about this.



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FURTHER RESEARCH

EXPLORING THE LIVES OF FOSTER CARERS AND THEIR IMPACT ON CHILDREN IN NEED

Foster care as we know it was first introduced in 1853 by a reverend in Cheshire (Fundacion Emmanuel, 2003). That current system removes children from their homes when evidence of neglect is found; initially being placed with next of kin or foster care. The main goal of the system is to rehabilitate the family and arrange for reunification (Child Welfare, 2018). In 2018, Gov.UK reported a 10 year high with 75,400 children in care.

However, budgets and the number of carers are being reduced. All 3 factors contributing to the national crisis (Chronicle, '18).

I interviewed a 23 year old female about her childhood in care. She described her upbringing as 'complex' as social services made sure she regularly met with her drunk biological mother due to her 'parental rights'. Now as an adult

she feels the system only wanted to reunite them due to the expense of keeping a child in care.

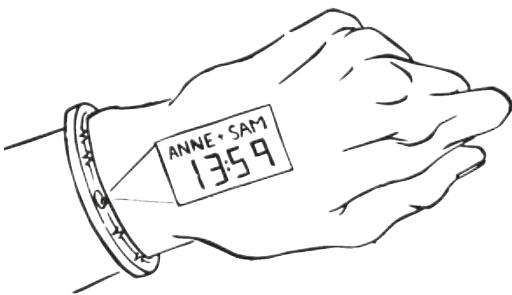
Another was with a 25yr old female who took years 'to understand why' she 'was taken away' and no matter how welcoming her carers were she needed time before she could trust them. She also struggled with watching her friends being greeted by their parents at the school gates.

My latest interview was with a carer of 12 years. He said every child was very different, and went on to explain how there used to be funded therapy sessions yet these are now the job of the paid carer due to budget cuts. Being a foster carer is a 24/7 job and the emotional strain makes 'the home become a house'.

DESIGN CONCEPTS

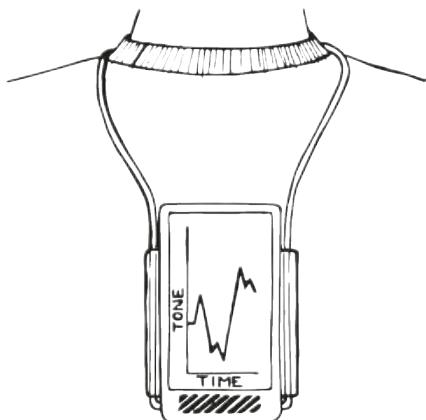
ADJUST TIME

This idea is based on the amount of quality time spent together. Every family member has a adjusting band, a digital wrist bracelet that reads their pulse. Depending on their pulse/mood, the band adjusts their room lighting ever so slightly so everyone can start to learn what upsets one another. The 2nd feature is that they track other bands within the household, notifying everyone whose spending the least time together and suggests activities to bond over. Rewards are also given.



CONVERT SOUND

Negative contact from biological families can have a detrimental impact on a child. The concept is a phone case which can; record tones of conversations, inform carers of messages from unwanted sources and filter certain words. The recordings will monitor emotions during calls helping carers understand child whilst the other features will help the carer monitor harmful activity such as bad language and unwanted contact through family members.

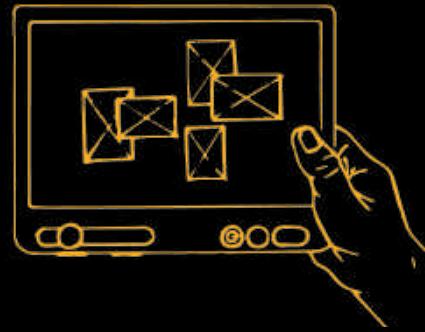


CAPTURE LIFE

After trauma children find it hard to communicate & process what they've been through. Research shows that the UK foster system used to finance therapy and specialist schools to help the children deal with that trauma. Due to budgetary cuts carers are now relied on for that support and this concept intends to help carers provide this.

The product is an interactive system, this includes; a wall docking station with a detachable tablet. Connected to this tablet via Bluetooth are four small camera lenses, these will be placed on the family members belongings such as; keys, phone case, etc. The lenses will gather unprompted photos which will be sent to the detachable tablet.

Those photos will be sorted by child and carer weekly, separated by emotional responses and discussed in detail. Talking through the emotions will aid the child in emotional development and social skills, leading to positive relationships in the future. Following this discussion the happy photos will be made into a collage that will become the screen saver for a number of devices, contributing to happy atmosphere within the family home.



CAITLIN BEER

HOW CAN KODAK HELP FATHERS MAINTAIN A CLOSE RELATIONSHIP WITH THEIR CHILD WHILST WORKING AWAY?

PROBLEM DEFINITION

As business travel rises, fathers are spending more time away from their families and usual routines. 90% of fathers work full time meaning their time spent with family is minimal. In a poll of 2000 business travelers, missing out on family time was named the biggest disadvantage (The Independent, 2017). Father's are pillars in the development of emotional wellbeing of a child. A father child relationship is highly important and one that needs to be maintained.

PERSONA

AGE 40

JOB Sound Designer

STATUS Married

LOCATION London

FAMILY Wife, Children aged 4 & 6

Thomas is a father to two children aged 4 and 6 and lives at home with his wife. His job as a sound designer takes him all over the world for a couple of weeks at a time. This time spent away working means that Thomas misses out on spending time with his children. When not working Thomas spends time playing and reading stories with his children. Thomas finds that his children are always very interested in where he is and love seeing pictures of where he has been. Thomas worries that when he is away he is missing out on valuable time with his family.





FURTHER RESEARCH

EXPLORING THE LIVES OF WORKING FATHERS AND THEIR EXPERIENCES

People are spending more time away from their families and usual routines. Between 2016 and 2019 average travel spend increased by 217.85% and is continuing to grow (conference-news, 2019).

I have chosen to focus on fathers who spend up to three weeks working away from their families. The continuing ease of business travel will cause fathers to miss out on family time.

Father's play a role in family life that cannot be replaced by another. An involved father promotes inner growth and strength and instills overall confidence. Fathers often set the bar for a child's future relationships.

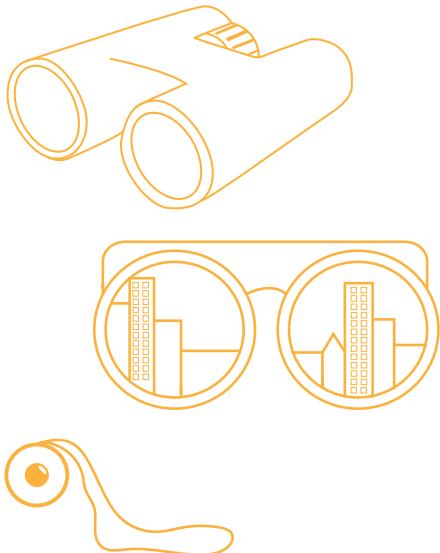
It is also highly important for a father to feel involved in a child's

life. Involved fatherhood makes men happier and healthier and is one of the most important sources of wellbeing.

Through both primary and secondary research it has been identified that father's bond most with their child through play. As father's are most commonly the secondary care giver they spend more of their time playing with the child than the primary care giver.

Having spoken to both father's who work away and their children it has become obvious that play time and reading stories are the two moments that are missed most by both. However, father's also stated that they also miss being able to give their child a hug and help out when unpleasant situations arise at home.

DESIGN CONCEPTS



THE LITTLE EXPLORER

The Little Explorer lets the child explore where dad is. A set of binoculars connects to a necklace that is worn by the father. The necklace allows the dad to capture quick images of where he is. He may not have a lot of time to explore so when an image of a street is captured the whole area is sent over the to binoculars allowing the child to explore further. This concept enables the child to feel involved in the father's travels.

THE DAD TRACKER

The Dad Tracker is a small hand held globe that connects to a tracking device worn by the dad. Where ever the dad is, the country on the globe lights up. The globe allows the child to press on the country to learn facts about where their dad is.

The Dad Tracker stimulates conversations and enables the child to feel involved in their father's travels. As well as creating a connection to Dad this device is an educational toy for the child.



THE STORY BALL

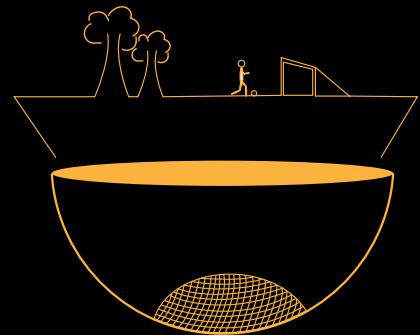
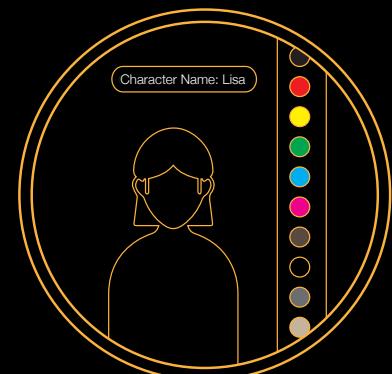
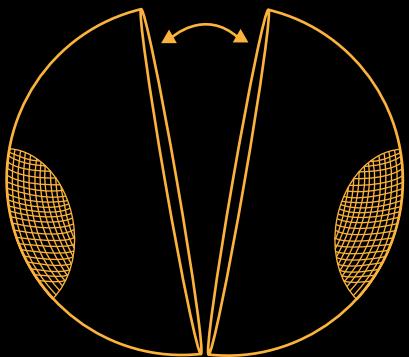
The Story Ball aims to bring Fathers and their children together through imagination and story telling where ever they are in the world.

The Story Ball splits into two halves which can be divided between the father and child. Each of the halves consists of a screen, microphone and projection software.

The Story Ball enables the father and child to create characters and form stories either about their lives or something completely made up.

The characters can be created on the screen of the device. Anything can be made from the child to a dragon. Once the characters have been created and named the user is able to speak the story into the device using the character names. The device then collates the story using the created characters and turns it into a projection that can be watched by the father or the child. The projection is narrated by the users voice.

Once the user has created the story they can send it to the other half of their story ball. This device enables fathers and children to share stories in a fun and creative way whilst separated.



JACK DAY

HOW CAN KODAK HELP CHILDREN IN LONG-TERM PAEDIATRIC CARE FEEL SUPPORTED?

PROBLEM DEFINITION

Between 1999 and 2010, the number of children in pediatric care increased from 594,000 to 739,000. This trend is set to continue. Children under 5 suffered the greatest increase of admissions, with a 28% increase. 75% of mothers and 82% of fathers have a full time job. This means parents often do not have the time to look after their child in hospital. 80% of children also have a sibling, meaning even less time can be dedicated to a hospitalised child. At this age, parents leaving children for extended periods can cause extreme separation anxiety, leading to developmental issues. I aim to create a product to help families in this situation.

PERSONA

AGE 5

JOB Child in Hospital

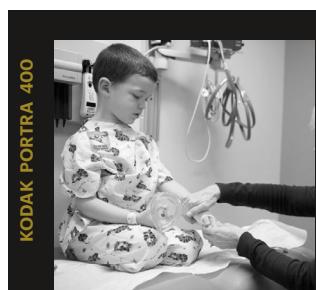
STATUS Single

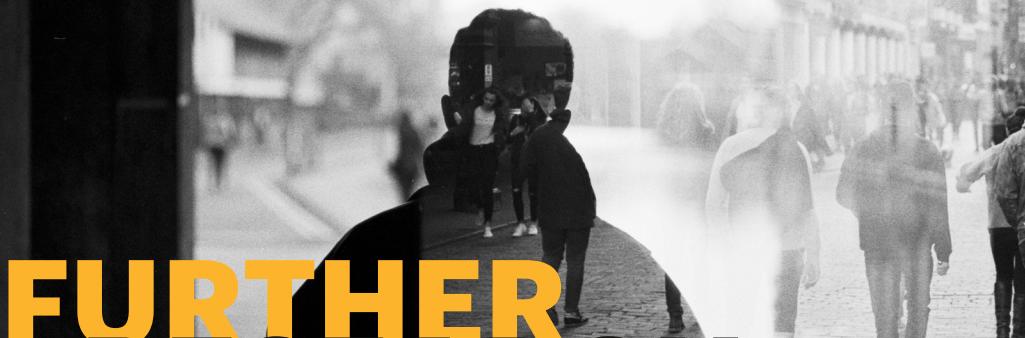
LOCATION London

FAMILY Mother and Father, Sister

Sammy is a 5 year old boy who is currently being kept in Great Ormand Street Hospital, as he suffers from leukaemia. Both of Sammy's parents have full time jobs, and Sammy's older sister needs caring for at home. All of these other commitments means that Sammy spends almost all of his time alone in hospital.

Sammy does not understand why his family leaves him alone and becomes frustrated, without his parents there, he blames himself for the separation, this anguish leads to severe separation anxiety, which prevents Sammy from coping day to day.





FURTHER RESEARCH

EXPLORING THE LIVES OF WORKING MOTHERS AND THEIR EXPERIENCES

In order to gain a better understanding of what children in pediatric care go through, and to understand a parents perspective, I undertook primary research, two of the stand out interviews were with a nurse who works on a children's ward (Tallulah Clarke) and a mother who's daughter has been in hospital care for 6 months.

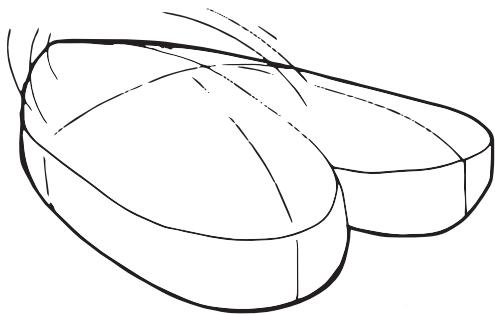
The nurse spoke of the effect parent separation had to the child. Intense anxiety was most prevalent. She explained the ward can be a scary, noisy place, and when left alone children become agitated and call for their parents, often not understanding why they don't appear. She went on to say that parents didn't live nearby and due to the complete lack of sleeping facilities often had no choice but to leave the child alone.

Speaking to a mother who's daughter in pediatric care, she spoke of the stress it causes parents. Often making their working life even more stressful. And guilt over the separation often caused sleepless nights.

From research I have found that the grief caused to children from separation often means they struggle to trust anyone else, meaning relationships with doctors trying to help them is strained, meaning they may not get all the treatment they need.

Children aged between 4 and 7 are the most common age group in long term hospital care. 5 years old being the most common in that group.

DESIGN CONCEPTS

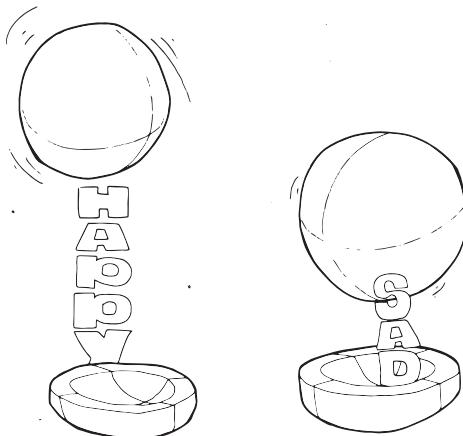


WARM FEELING

Separation anxiety in children is largely caused by a lack of 'presence' therefore if I can simulate the presence the anxiety can be quelled. The idea is a soft rubber effect heart that beats at the same rhythm as the mothers, and is around the same body temperature, the mother would also have one which would represent the child. At times of anxiety, the child can squeeze the heart, the parent's heart would move and the parent would reciprocate the squeeze to let the child know that they are there.

MOOD ORB

Mood Orbs are a visual representation of a child's mood and a parents presents. Both the mother and child have a floating orb, when the child is low it can lower their orb, which will lower the parents, simultaneously dimming the glow. The parent can raise the orb back up, emitting a positive warm glow, showing the child they are not alone, and that the parent is thinking of them, and care about their mood.



PATIENT PAL

Patient Pal, is an around the clock company device dedicated to making sure hospitalised children are not lonely, with inter-grated family communication so that the child knows their family is not far away.

Patient Pal is able to talk to children about how they are feeling, and re-assure them that they are not to blame for their families absence, as is a common feeling with children left alone. Patient Pal can also reassure children that the doctors and nurses are around to help, and that they shouldn't be scared.

Patient Pal generally has a smiling face on screen. But should a parent or relative want to talk to the child, they can take over Patient Pal's face and face-time with the child, or leave them messages to let them know they are thinking of them.

Patient Pal has a warm fluffy exterior, and a heart beat. Proven to be important, as children associate a heart beat with living company.

Patient Pal brings together the need for company, as well as connection to those hospitalised children miss most.



LUKE TOLCHARD

HOW CAN KODAK HELP IMPROVE CHILD SEPARATION ISSUES FROM MOTHERS GOING INTO AND ALREADY WORKING IN THE ARMED FORCES?

PROBLEM DEFINITION

Mothers have a profound effect on the development of a young child. From day-one, mothers provide the nutrients that their child needs to grow and develop. This creates a maternal bond that cannot be replicated by any other means. The effects on child development when a mother isn't present is detrimental to social and emotional development, general health and wellbeing, and growth. With communication time limited, there aren't sufficient methods to help maintain this maternal connection.

PERSONA

AGE 29

JOB Crew woman

STATUS Married

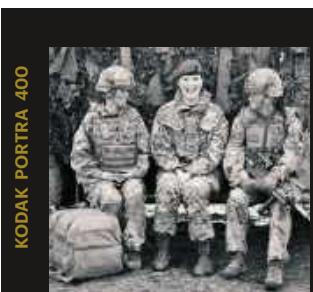
LOCATION Dartmouth

FAMILY Husband, Child aged 4

Bethan O'Connor is devoted to the military and her relationship with family. Bethan has been in the military since A-Levels and has been married for 2 years. Her deployment periods are only getting longer as she spends more time in the military. With the new addition to the family this has put extra strain on her.

Being in the military and away from her family has affected her personally. Before the child it was easy to maintain her relationship with her husband. But due to the short amount of communication time per-week she's finding it difficult to split the time evenly between husband and child.

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KODAK PORTRA 400



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KODAK PORTRA 400



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KODAK PORTRA 400

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KODAK PORTRA 400

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KODAK PORTRA 400

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KODAK PORTRA 400

FURTHER RESEARCH

THE IMPACTS OF MOTHER-CHILD SEPARATION AND WHAT'S OUT THERE CURRENTLY

Children without a mother in close proximity show increase activity in their amygdala which effects fear and stress (LoBue, V. 2018).

Typical deployment periods in the Armed Forces are 6 – 9 months (Powers, R. 2019).

Mothers can be forced away from their new-borns in as little as 6 ½ months after birth (The British Army, 2019).

This immediate separation completely ruins any chance of mother-child attachment which takes 3-years of quality time together to develop (Komisar, E. 2019).

Without a mother the child can grow up to develop attachment issues with family members, friends, and romantic interests as well as less likely to grow up to

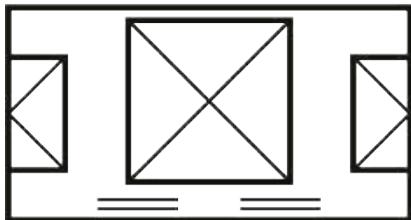
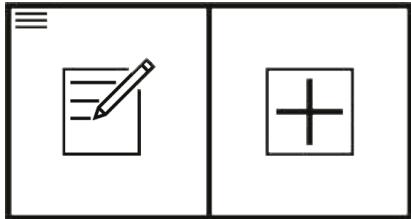
become happy, independent and resilient adults (Winston and Chicot, 2016).

In one interview with a RAF recruit, he said there are some measures in place to help with bedtime where the parents would pre-recorded bedtime stories for them to be played as the child is going to sleep.

In another interview I discovered that the parent found it difficult to engage with their child over FaceTime. He said, “Even though I haven’t been home for ages and my child misses me, he doesn’t want to talk. He just wants to play.”

Children don't want to sit and talk, they want to engage in something that is stimulating and interesting to them.

DESIGN CONCEPTS



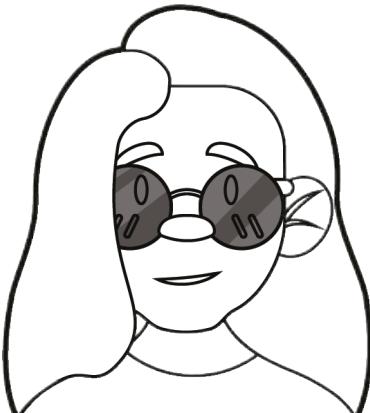
STORYTIME

This concept is used for a mobile device. This is used to create new stories every night for the child to watch. The parent who is away will create a unique story to which they will then record themselves reading it. The parent creates the story by following parameters. The child can then listen to the recording of the parent as they watch the story unfold. If the parent doesn't have time to write a story they can auto-generate one from the parameters, so the child doesn't go without a bedtime story.

HEY

This artifact uses phone calls to learn how the parent sounds, talks, and converses. The product learns through AI how to talk like the parent for when they are not available. The AI then talks by phone call or an avatar to the child. The avatar is created by scanning and then editing the character to look like the parent. The advantage is that the child can talk to the parent-character without the parent being there. It also provides the child with a face to remember them by, so they don't forget how they look.

Hey there!



FACE TO FACE

This product connects to an interface that uses a character resembling the parent to talk to the child. The parent has their face scanned and edited to look like them. The product is used to talk to the child either via using the interface or by telephone call. Additionally, the low bandwidth of audio won't be a strain on military bases making this product ideal to use in these places of work.

The system works by delaying the phone call so the audio can be synced up to the mouth movements of the character. Furthermore, the delay wouldn't be noticed making everything seamless. The voice coming from the parent and the tone it's spoken in is analysed before being outputted to determine how the character acts, moves, and the emotions shown on their face.

The voice of the parent is used to make the parent-character talk, activate different movements, and act using phrases. The stimulus of the moving cartoon-parent and the bright colours help to maintain the concentration of the child, so they stay engaged to the conversation. Following on, the engagement of the child can be increased by the trigger words "Let's Play" followed by a game i.e. "Guess Who?". The benefit of using a character resembling the parent is that the child will not forget what the parent looks like.



face to face

More than just a phone call.

HANNAH COOMBS

HOW CAN KODAK HELP TIME-POOR WORKING MOTHERS CONNECT WITH THEIR CHILD AND FEEL MORE CONFIDENT IN THEIR PARENTING?

PROBLEM EXPLORATION

The percentage of mothers in full-time employment is rising, and has increased over 8% in the last 19 years (ONS, 2019). Despite the high percentage of mothers working, mothers still shoulder a disproportionate amount of domestic work relative to fathers (Craig & Mullan, 2010). This causes mothers to experience internal conflict about work interfering with their family life. This can lead to attachment issues with their child, guilt, fatigue, lower romantic relationship quality, and lower job and life satisfaction (River, Borelli and Nelson-Coffey, 2019).

PERSONA

AGE 42

JOB Director of Marketing

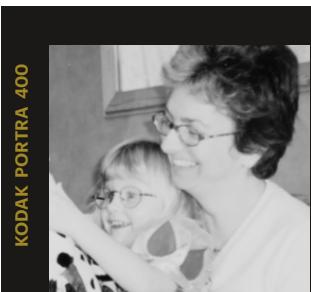
STATUS Married

LOCATION Surrey

FAMILY Wife, Children aged 4, 6 & 12

Liz commutes to London for work during the week; leaving home at 7.30am and returning at 6.30pm. Her husband also works, so they hire an au pair to look after the children in the week.

Liz loves spending time with her children and often feels guilty that she cannot spend more time with them, and questions whether her working will have a negative impact on them.



KODAK PORTRA 400

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KODAK PORTRA 400

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FURTHER RESEARCH

EXPLORING THE LIVES OF WORKING MOTHERS AND THEIR EXPERIENCES

In 2019, three-quarters of mothers with dependent children were in work, up from two-thirds of mothers in 2000 (ONS, 2019). This trend is forecast to continue increasing over the next 15 years.

Working mothers face a unique, normative pressure to prioritize their family over their work, whereas fathers do not (Morgenroth & Heilman, 2017). This pressure can lead to greater anxiety, depression and interpersonal difficulties for the mother, which in turn can negatively affect their children (Borelli et al., 2017).

Through conversations with both working mothers and their children, it has been identified that both the mother and child had the most difficulties when the child was in primary school. Between

the ages of 5-7 a child starts to become more aware and articulate of their feelings (Morin, 2019), and may notice their mother isn't always there. The child may have difficulty understanding why their mum isn't there, and may blame themselves.

At the age of 5-7 children are still incredibly dependent, which makes it more difficult for the mother when she is unable to be with them during her work hours. The mother may find it difficult to balance their work and family life, and may question whether they are a good parent.

Therefore, the design exploration will focus on improving the connection between mother and child, which will reduce the mother's stress and improve both the mother and child's mental wellbeing.

DESIGN CONCEPTS



DREAM OF ME

This set of earphones use a combination of hypnosis and recordings of the child and mother's voice to relive memories or create new dream memories as mother and child. Not only will this make the mother and child feel more connected, but this also facilitates a better quality sleep by helping the mother and child relax. It also utilises a daily activity where the mother and child are apart (sleep), and transforms this into a shared moment.

GROW TOGETHER

This plant requires both the mother and child for it to grow and thrive. Matching smart wristbands connect to the plant remotely, and record shared moments. Shared activities cause growth spurts and healthy, green leaves. If a lack of time is spent together, the plant will start to wilt and the wristband will glow to remind the mother to do an activity with their child. This is an interactive reminder to do shared family activities, and helps the mother and child remember their shared family time.



TOGETHER TIME

Together Time aims to create a new shared moment for mother and child by highlighting memories throughout each week and suggesting fun activities based on wearable data.

This family hub has the ability to project photos direct from the mother's phone, review events in the family's calendar, and play recorded messages and quotes collected throughout the week.

Each weekend the family gather around the hub and slot their wearables around the device for it to begin the weekly activity. The family can cuddle and relax as they watch, listen and laugh to the weekly snippet of their lives.

Each family member is able to add things they would like to talk about or show, and the hub invites each person to share their favourite moment of the week.

This device encourages reflection whilst also creating new moments of family fun. Reviewing favourite moments and being together with the family will help the mother stay in a positive mind-frame, and the device will give tailored suggestions on activities the family can do together based on time the mother has available.



HARRISON SIDDALL

HOW CAN KODAK HELP FAMILY MEMBERS WHO HAVE MOVED ABROAD FEEL LIKE THEY ARE NOT MISSING OUT ON LIFE'S IMPORTANT EVENTS?

PROBLEM DEFINITION

With the world becoming increasingly globalised the trend of young adults moving abroad for employment is becoming increasingly common. Many will also decide to live abroad permanently and likely start families of their own. However, once family members are geographically separated from the rest of their family there emerges the problem of maintaining meaningful communication between them. The grandparents living in the native country may be particularly affected as they feel they will miss important life events, such as first steps and birthdays of their grandchildren who are now growing up abroad. Current methods of sharing important events include sending photos, text messages or video and phone calls. A better way of making family members feel like they are not missing out is needed for more meaningful communication.

PERSONA

AGE 38

JOB Teacher

STATUS Married

LOCATION UK (originally from USA)

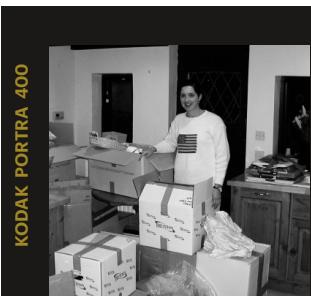
Husband, 2 children age 10,

FAMILY 7

Jane Stevenson moved to the UK for a teaching job when she was 26. She met her husband there and now lives in London with him and their 2 children. She is now a permanent resident of the UK and plans to continue raising her family here.

However the emotional difficulties of no longer being able to easily see her parents back in the USA and have them visit has put strain on her, the grandparents and the children, who rarely ever see their wider family. A more intimate and meaningful form of communication is needed for her family.

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FURTHER RESEARCH

IMPACTS ON GEOGRAPHICALLY SPLIT FAMILIES

Effects on Children

“Geographic mobility, overseas residence, and sex significantly affect adolescent attitudes and personality patterns.” (Werkman, S. 1981)

“Less positive self-concepts, greater insecurity about the future.” (Werkman, S. 1981)

Effects on grandparents:

“For the ones who get left behind, there is nothing new. Only a hole where a family used to be.” (Mobbs, C. 2017)

“This can lead to anger and resentment, on both sides, if it’s not managed appropriately.” (Mobbs, C. 2017)

“Long distance grandparents may feel sadness, bereavement, pain, resentment, jealousy, frustration and anxiety.” (Adcox, S. 2017)

Effects on wider family

“Being away from certain members of the family like aunts or uncles can be difficult for the entire family. Building a new support system is important.” (Green, E. 2017)

“The number of family migrants remained stable in relative terms, but it increased in absolute numbers, more specifically from 1.8 million in 2016 to 2 million in 2017.” (Migration Data Portal, 2018)

Primary Sources – interviews:

In one interview with a mother who had moved abroad because of an employment opportunity, she explained that her children find it difficult to talk to and interact with their grandparents on the rare occasions they get to see them. She also told me that face time and phone calls were not effective for creating the meaningful interactions needed between visits.

In another interview with a grandparent living in the UK whose son had moved abroad and now had a family of his own, she described how receiving photos of her grandson was the most meaningful method of communication currently. However, she still feels like she is missing out on big life events and wants some way to feel more like she is actually there to experience it.

DESIGN CONCEPTS

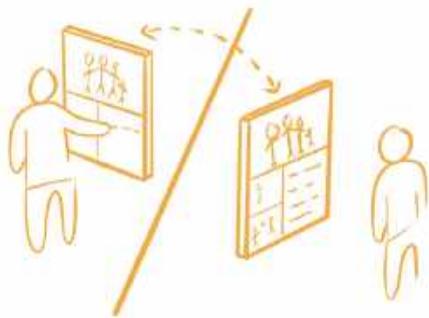


PICTURE PAD

This concept revolves around the use of two identical connected products. One picture pad set up in the home, much like a picture on the wall, of the family living abroad and the other in the home of the grandparents/ wider family. The pad acts like a screen that can send and display photos and videos of what each family has been up to that day. The photos will appear on the pad in real time and messages can even be written on the pad and sent. The pad can also be used for video calls. A more intuitive and interactive way of photo sharing can be fun for the children and grandparents.

HEART TO HEART

This concept comprises of multiple devices which each member of the family will have. They are small enough to be carried around anywhere and even worn on the users clothing. The “Hearts” can be set up with certain connections between family members like a kind of group chat or direct message and will communicate feelings of warmth, scent, heartbeat, colour and voice messages in real time. With these more intimate forms of communication families separated by vast distances can feel emotionally closer to each other.



3D PHOTO ENVIRONMENT

This Concept which is aimed at allowing the grandparents to feel like they are not missing out on their grandchild's important life events, consists of a camera device owned by both members of the family wanting to communicate. It works much like a normal camera but scans the environment which can then be projected as a 3D AR environment on the recipients end. This aims to make the recipient feel as if they are actually there in the picture and therefore not so distant from the important event, such as their grandchild blowing out the candles on their birthday cake.

"Allowing family members to feel like they are physically involved in big events is key to a more meaningful connection."



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