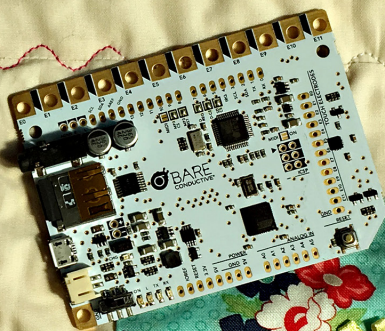


PARTNERSHIP QUILT

PROJECT REPORT

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An interactive crafts project by



CHANGING LIVES

Open Lab

at **NEWCASTLE**
University

For more information visit:

<http://tinyurl.com/partnershipquilt>

ABOUT THE PROJECT

The Partnership Quilt is a collaboration between Changing Lives, Six Penny Memories, and Open Lab at Newcastle University. It started out as an activity for clients of the Girls and Proud project in Changing Lives to do during the Northumberland drop-in sessions organised by Kirsty, but quickly turned into something bigger – clients began sewing at home, while waiting for appointments, or even in the bath! As Kim and Debbie from Six Penny Memories became involved in the project the individual pieces came together and were shaped into a well-balanced quilt. While this quilt by itself is something all those who put a stitch in it can be proud of, the addition of the secondary quilt is what makes this a truly special project. Angelika and Janis from Open Lab used do-it-yourself, flexible, and low-cost technologies to turn the soft and colourful quilt into a living archive of stories and experiences of Changing Lives service delivery in the North East of England. The addition of quilted capacitive touch sensors turns this traditional craft artefact into a contemporary piece of interactive art: by touching some of the rosettes on the quilt a voice is activated to tell a part of the story that lies in the folds and seams of the quilt.

The materials we used allow us not only to continue to share the story of the quilt, but they allow Changing Lives staff to curate the audio recordings and easily exchange the voices that are shared through the quilt. Like this, it can be used for exhibitions, staff training, or focused one-on-one reflection.

We see the development, exhibition, and continued legacy of the quilt as a combination of service delivery and advocacy work. Initially it aimed to bring a new skill to Girls and Proud as well as Male Action Project (both projects within Changing Lives) clients and was also seen as a quiet activity to partake during drop-in sessions and in other situations. With the addition of DIY-electrodes that function as capacitive touch sensors, we turned the traditional quilt into a contemporary and interactive piece of art.

As such, the partnership quilt is a collaborative project that combines traditional craft techniques and do-it-yourself technologies to develop a living archive of stories and experiences related to Changing Lives. Researchers, professional quilters, charity staff, and charity service users came together to develop this participatory, collaborative, crafted living archive, and embedded it in local histories and contexts of craft, as well as service delivery of the charity, and interdisciplinary research at the nexus of Human-Computer Interaction, Social Sciences, and Community Informatics. Together, we augmented localised quilting techniques with flexible, low-cost, do-it-yourself technologies in the shape of FlexE-Touch capacitive touch sensors; by touching some of the rosettes on the quilt a voice is activated to tell a part of the story that lies in the folds and seams of the quilt.

Due to our close collaboration with Six Penny Memories, a duo of local professional quilters, authors, and TV-presenters and Changing Lives, the partnership quilt is contextualised in multiple practices. For example, we used quilting techniques that are based in local histories (Ferguson 2011). In the mining communities, which were at the heart of the North East of England's development in the 1930s, "quilting was seen as the respite from work with the warmth and companionship and the gleeful delights of conversations." (Freeman n.d.) Furthermore, the quilt is also contextualised in everyday service delivery of the charity: the project was started during one of the regular drop-in sessions, and grew from there as new collaborators brought in novel areas of expertise. On top of this, this project is contextualised in Angelika's interest in designing technologies with charities to further justice for sex workers and Janis' interest in using 'making' as a tool for empowerment with diverse groups.

In this report we provide details of the process behind and outcomes of the project. The report also functions as a toolkit for others who wish to develop a similar tool. We start with some pictures and excerpts from a reflexive conversation we had about the quilt once it was almost finished. Following these quotes, we provide a more in-depth analysis of the conversation and the project as a whole. We do this by exploring the ways in which the partnership quilt is made up of various metaphorical and physical layers. This is then followed by instructions on how to create your own digitally enabled quilt. First, we show how to make a DIY electrode, and then explain how to use these to turn a traditional quilt into an interactive one; and how to make use of the BARE conductive touch board to create your own living archive. At the end of the report, we anonymously share the story of one of the quilters that worked on The Partnership Quilt: Linda's story.


THANKS!

We would like to give special thanks to Ann who was the Changing Lives volunteer who started this project and everyone who has put a stitch into the quilt! We would also like to thank Vlieseline for exhibiting the quilt on their stall at the Festival of Quilts 2017.


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QUILTER QUOTES


To start off this report, we want to share a few quotes from the women who made this all possible. These quotes come from a 30 minute collaborative reflection that was recorded on the 12th of July 2017. It took place at the end of the second 'Quilting Extravaganza' we organised, which were days where GAP/ MAP staff, service users, the professional quilters from Six Penny Memories, and researchers from Open Lab came together to work on the quilt.



"You cannot think of anything else when you're doing it. You just concentrate on that and you don't realise how long you've been sitting there doing it; and then you've done like 5 [pieces]"

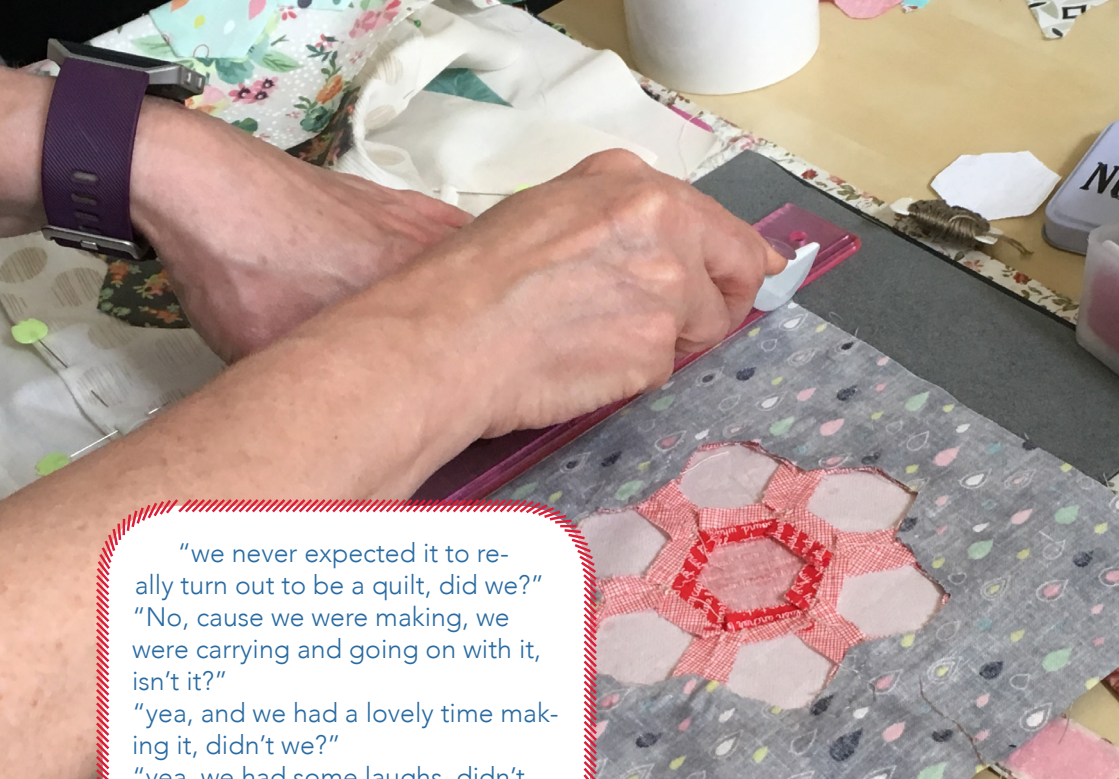


"we talked loads of this when we were making the quilt about 'eee do you remember when you were little, and your mam' or 'when you were in school and they showed you how to sew' and the memories that you get"



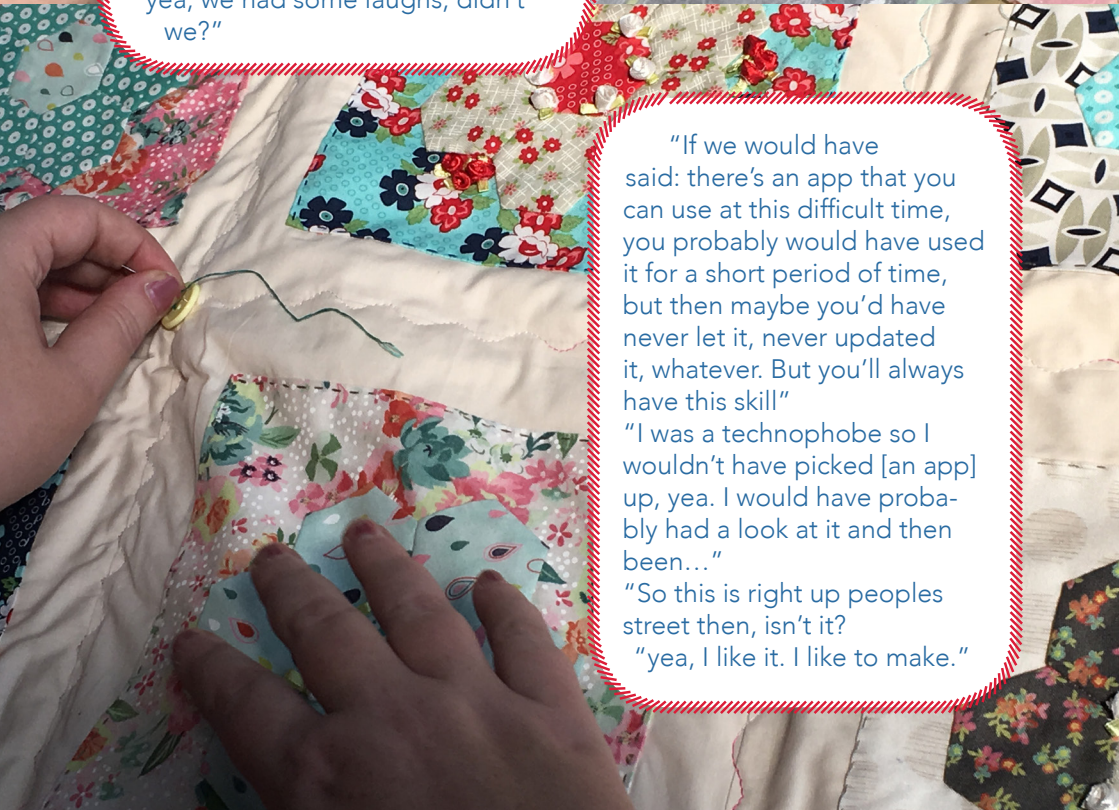
"there's something about a group of women getting together and getting a thing done! [...] women are really good at that aren't they? Like, this is what we need to get done and everybody's done a little bit haven't they? And I think that's a beautiful thing!"

"drop-ins are just such a nice space to be able to do everything you want to do. Like you love the drop-in don't you?"
"Yea, it's, it's the best thing I ever did. It changed me life."




"we never expected it to really turn out to be a quilt, did we?"
 "No, cause we were making, we were carrying and going on with it, isn't it?"
 "yea, and we had a lovely time making it, didn't we?"
 "yea, we had some laughs, didn't we?"

"eeeeee there's a feminist undertone here somewhere!"



"If we would have said: there's an app that you can use at this difficult time, you probably would have used it for a short period of time, but then maybe you'd have never let it, never updated it, whatever. But you'll always have this skill"
 "I was a technophobe so I wouldn't have picked [an app] up, yea. I would have probably had a look at it and then been..."
 "So this is right up peoples street then, isn't it?"
 "yea, I like it. I like to make."

"I always...you know how far you have come. Because I remember days when we'd been sewing the quilt and it's been tough. We had tough times, but we've sort of sewn our way through it. It's been..."
 "We got through it though"
 "ehem"
 "there are so many layers of stories on it, which is nice as well. The layers of fabric, the layers of stories."



"I don't think the GAP and MAP projects ever come up with anything like this, like, creative, in such a long time! [...] it's the first time the project's actually come out with a result like this."

"actually seeing it, I feel a bit like, wowed. Is that the word? [...] Getting a group of lasses together"
"and get on with it, innit?! It's a job"
"just a job, keep werselves busy, we've kept ourselves out of trouble and I've got some lovely memories sitting with youse"

"The North East is absolutely steeped in history. We are very well known throughout the world for our quilting. Textiles. Particularly the quilting designs that's the hand quilts. So when you did this running stitch and it's gone through, and this stitch here that's gone through three layers [...] When you put your buttons on, you're actually quilting [...] So you've, you're carrying on a tradition that's particularly popular in this area."

"I am proud of it, don't get me wrong, I am proud of the quilt now it's finished, just when it wasn't finished"

LAYERS OF FABRIC, LAYERS OF STORIES

A quilt is made up of three layers: the quilt top, the wadding in the middle, and the backing fabric; and sometimes the quilt top is made up of multiple layers of fabric, applique, and sewing in and of itself. On top of these layers of the traditional quilt, The Partnership Quilt augments these traditional layers by fitting it with additional layers of quilted electronics, theoretical underpinning, learning, trust, and experiences. It is these additional layers that make the quilt meaningful beyond its immediate existence. The process of and work involved in the production of it in and of itself, as well as the collaboration that was born out of this project, and the living elements that are afforded through the augmentation of traditional crafts make the quilt an artefact to support Changing Lives service delivery and training beyond its production.

With this, we mean that because of the many different layers involved in the production and life-story of the quilt, the quilt becomes more than the artefact. By looking at the layers of history, work, learning, and experiences involved in its production, we explore the different kinds and types of impact the production, use, and exhibition of the quilt has already had and will have in the future.

Layers of History

The quilt is contextualized in local histories of craft and women's work. Quilting used to be something that was taught in schools in the North East of England, and many of those who put a stitch in the quilt had previously done this in their childhood, but this rarely happens anymore. Many different techniques were used such as English paper-piecing, applique, machine-quilting, and tie-quilting. Using these techniques, we are "carrying on a tradition that's particularly popular in this area" according to one of the professional quilters.

In the process of making the quilt, we learnt from one of the professional quilters that "the North East is absolutely steeped in history. We are very well known throughout the world for our quilting, textiles", but this is rarely written down. There is little written history of the quilters in the North East of England, the quilters' attitudes towards their craft, and how it fitted in with the rest of their lives (Freeman n.d.). Freeman addresses this gap in written knowledge by writing down some of the oral history that had been collected about quilters in the North East of England between 1870 and 1930; advocating for the recognition of quilting, knitting, and cake icing that it deserves. They state that it has been argued that "people who possess a written history in our society are accorded a different level of respect from those who lack one" (Freeman n.d.), so with this report we hope to provide a written history of experiences and quilting of those who made The Partnership Quilt.

In the North East of England quilts have a unique history. While 'making a living'

from quilting is something many aspired to do, it was the "very bread and butter" (Ferguson 2011) of many quilters in the North East of England in the depression years of the 1930s in the mining communities (Ferguson 2011). The quilts were made mostly in 'pit villages', or villages where mining was the primary source of work for its inhabitants, for the beds of the small terraced houses in which the quilters, their miner-husbands, and children lived. It was here that quilting was seen as a respite from work with the warmth of companionship and the gleeful delights of conversation" (Freeman n.d.).

Layers of Work

To be able to produce the quilt, multiple layers of work were involved. This includes the work involved in the quilting itself (including the production of each of the rosettes), but also the organisation that was necessary to be able to do this during the drop-in sessions (eg. organising the materials, the drop-in sessions, and coordinating this with other drop-in sessions). The quilt was started in a drop-in in Northumberland by a member of staff and volunteer from Changing Lives, but this quickly turned into a project that multiple case workers and service users worked on across multiple drop-ins organised by GAP and MAP. As one, case worker puts it: "we just kind of cracked on with it and were just sewing. We never expected it to really turn out to be a quilt, did we?"

When Changing Lives and Open Lab first came together, it was to discuss the development of an app for the charity to support their service delivery, but through the co-evolution of the project into The Partnership Quilt, we learnt that it was the process itself that was important. As we were sitting around the (almost) finished quilt, reflecting on the integration of the digital technology into the final interactive archive, one of the researchers reflected on the tangible interaction with the quilt: "I mean, there's so much more, like, effort in it. manual effort. so like actually by touching the quilt, you have a far better connection to what has been done and it speaks more to the senses rather than, you know again, just looking through a screen." It is the manual effort and labour that has gone into the quilt that makes it meaningful; and this should not be hidden by any digital technology. Instead, we see the technology as part of the experience involved in the interaction with the final product that is the quilt.

The work involved in the production of the quilt was also mentioned in a conversation between a service users (A) and member of staff (B) from changing lives:

A: and get on with it, innit?! It's a job.

B: just a job, keep werselves busy, we've kept ourselves out of trouble and I've got some lovely memories sitting with youse

While the work involved in the quilt was a substantial element of the project, in this extract from the group reflection we see that the creation of the quilt was more than the work involved in its production. It was a genuine collaboration between various groups that facilitated power-shifts in the expression of thought through making.

Layers of Learning

By taking part in the entire process of creating the quilt, everyone involved in the project went through the entire process of designing and sewing quilting blocks as well as quilting the various layers of the blanket together, making capacitive touch sensors, and interacting with these to listen to audio files. One of the professional quilters mentioned this learning we have all gone through during the group reflection: *"you've gone through lots of processes and learnt lots of skills, not necessarily realising that's what you're doing at the time"*. She continues to list the many different traditional quilting skills we learnt: *"you've learnt how to do some English paper piecing, you've then did some applique because you applied the hexagon onto your background square, and then you did a further form of applique using the embroidery thread and a piece of calico which we put on the back. Then you've cut all the fabric away before it's all been joined up"*. These skills again, are contextualised historically as they are based in traditional techniques practiced by women in the North East of England.

While the original idea for the quilt was quite simple: to create a quilt of rosettes, through the involvement of Six Penny Memories the design of the quilt also changed. The scope was increased to appliqueing the separate rosettes onto fabric with embroidery thread. Similar to the women working in the pit villages of the North East of England, the *"creativity and imagination also provided for additional levels of satisfaction."* (Freeman n.d.) In the reflection we talked about the balance of the colour choices in the quilt, and how everyone involved in the making of it learnt to make fabric choices and placements within the rosettes. On top of this learning of traditional crafts, the quilt was also a source of learning for mindfulness. This was made particularly clear in an interaction between a case worker (C) and a service user of Changing Lives (D):

C: *I bet it chilled you out a little bit...*

D: *it did, cause at the time I refused medication as well, so.*

C: *so that was a way of focusing on that?*

D: *it was the only thing I focused on. cause all the other stuff was negative, and that was positive.*

One case worker made the value of learning skills through this project clear to one of the service workers: *"but you'll always have this skill. and you're already thinking about other sewing projects aren't you?"* The woman she was talking to is currently working on making a baby quilt for her still unborn baby, incorporating much of the learning around quilting and mindfulness that she got out of The Partnership Quilt.

Layers of Experience

Freeman states that oral evidences they have collected have encouraged views that *"crafts' formal and technical properties are a means of expressing group or community experience"* (Freeman n.d.). Similar to this thought, our quilt is in and of itself a means of expressing the group experience of those who took part in making it. Not only in the tangible outcome of the quilt itself, but also as the living archive that it has become with the addition of the technology: the audio clips

that were curated to be interwoven into the fabric of the quilt are all from the communal reflection that used the experiences of those making the quilt as a starting point for conversation.

This kind of recording and sharing of information however was only possible due to the genuine collaboration and inherent trust between all collaborating stakeholders. It is also this sharing of experiences (for example at exhibitions of the quilt) that the use of the oral material enhances the artistic and aesthetic meaning of the quilt in a legitimate and valuable form (Freeman n.d.).

On top of this, the quilt also had very direct effects on the experiences of those involved in its making. Similar to those who made quilts in the pit villages between 1870 and 1930, the quilt was *"a way of distracting yourself [...] It's sociable. If you're not feeling a hundred per cent, if you're poorly, down"* (professional quilter during reflection) as well as a source of enjoyment, *"achievement and dignity"* (Freeman n.d.). This is shown in an interaction between two case workers (E and F) and two service users from Changing Lives (G and H):

F: *how does it make you feel that we have got this far?*

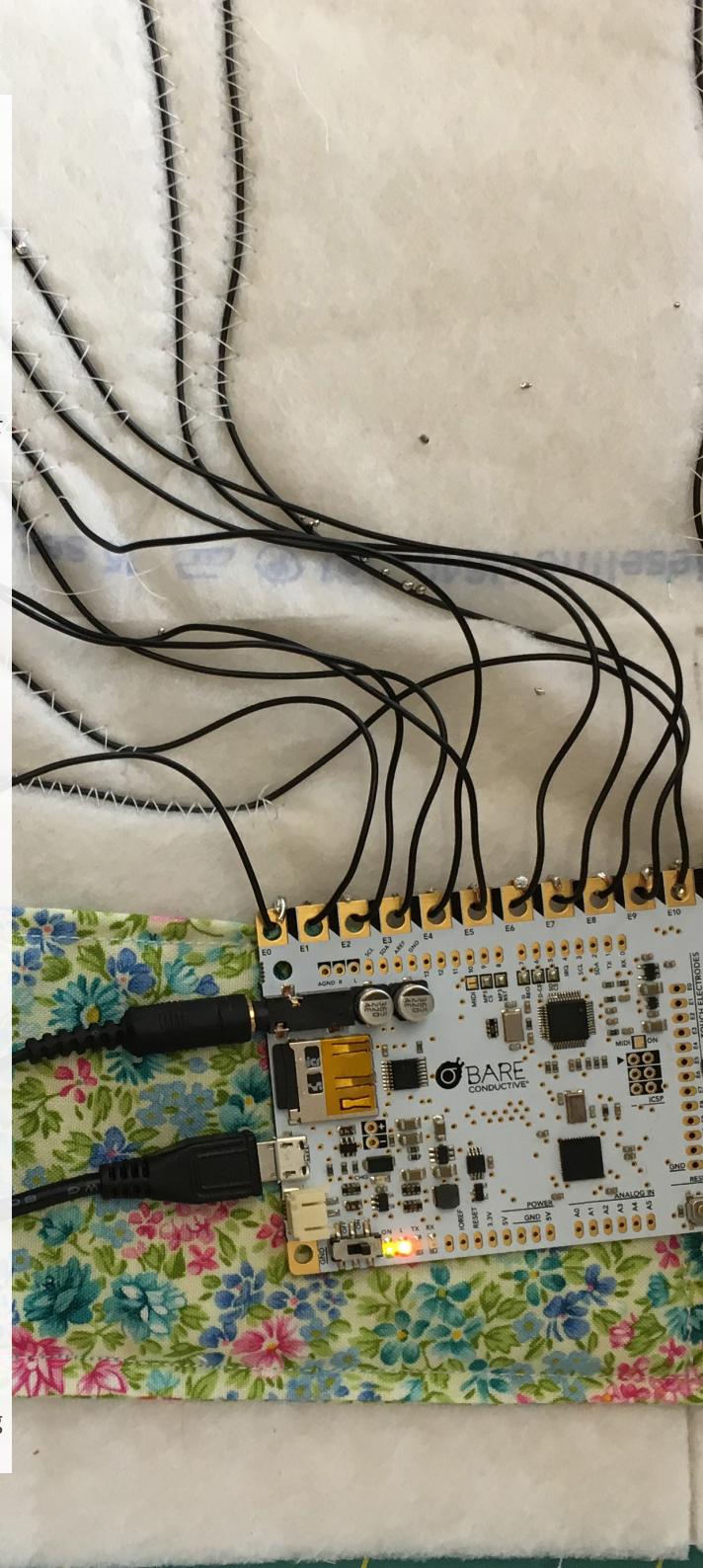
H: *good.*

E: *do you feel proud? like this is what you've achieved*

H: *yea.*

F: *do you [facing towards G] feel proud that you've put a little stitch in?*

G: *yea*



THE FINAL QUILT



This is what the final quilt looked like. The fabrics were all donated to the project and are made up of free sample fabrics. The individual rosette fabrics were combined by the women who sewed them, while the 16 pieces were arranged by Six Penny Memories. 12 out of the 16 pieces are fitted with capacitive touch sensors (seen below) that play an audio clip when the rosettes are touched.

The first twelve audio clips that are embedded in the quilt were curated from the 30 minute reflection we recorded at the end of the last quilting session.

We chose to embed 12 clips, since this is the number of pins the BARE Conductive Touch board has. Working with only one board allows us to exchange the audio files easily, making this quilt a living and constantly changing archive of voices of those working with Changing Lives in the North East of England

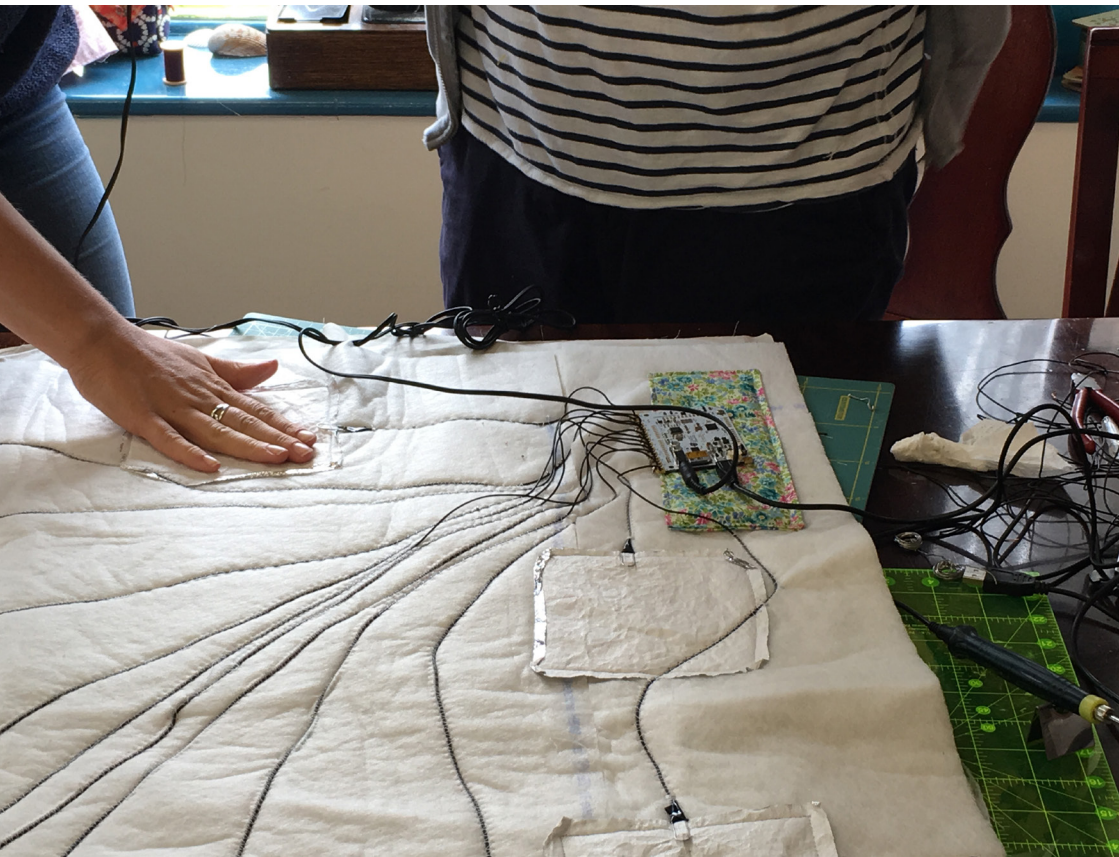
The audio clips are all between 30 seconds and 1 min 30 seconds long. Four of them contextualise the quilt in the history and process of its making; six of the audio clips address the making of the quilt; and two of the audio clips address current and potential outcomes of the project as a whole.



THE LIVING ARCHIVE

We see The Partnership Quilt as a living archive of stories, experiences, and voices associated with the service delivery and activities organised by Changing Lives in the region. When we had almost completed the quilt, we audio-recorded a conversation where many of those who put a stitch into the quilt discussed the stories and meanings behind the quilt. This conversation was then used to curate the first iteration of the archive: 12 short audio clips were curated and cut from the 30 min. recording, to be embedded in the quilt.

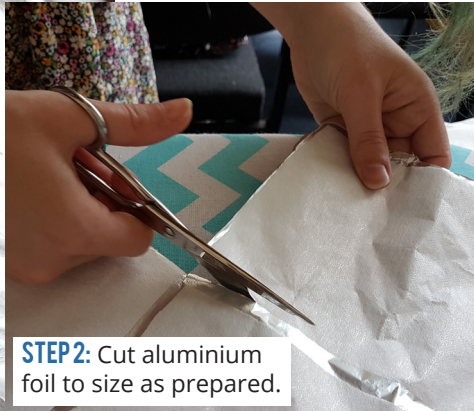
The materials we used allow us not only to continue to share the story of the quilt through exhibitions, but they allow Changing Lives staff to curate the audio recordings and easily exchange the voices that are shared through the quilt. The adaptability of the quilt allows for new curations by staff that can be used at exhibitions, but also in training with staff and volunteers, as well as one-on-one reflexive interactions with service users. Since it is a 'living' archive rather than one to which more content will be added to in the future, new content can only be embedded in the physical artefact if some of the current content is removed – if the stories evolve into completely new ones.



HOW TO MAKE AN ELECTRODE



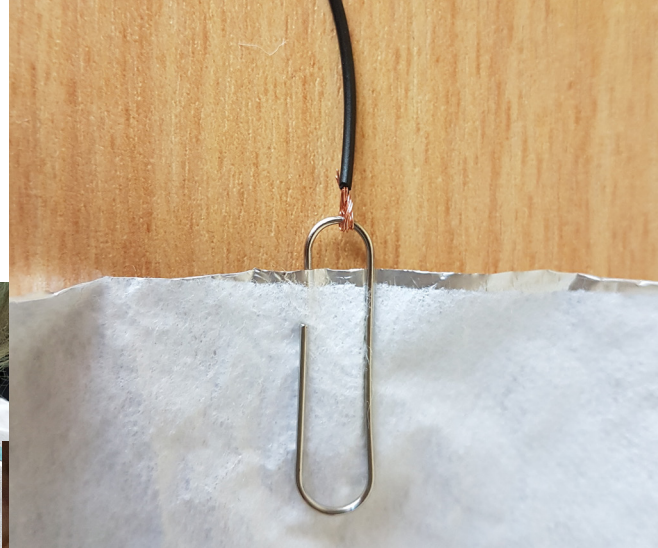
STEP1: Cut out rectangles from one-sided fusible interlining. Iron these onto aluminium foil.



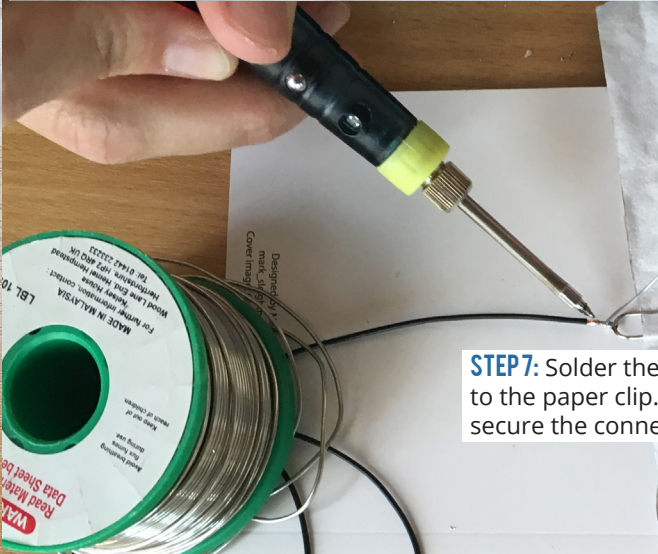
STEP2: Cut aluminium foil to size as prepared.



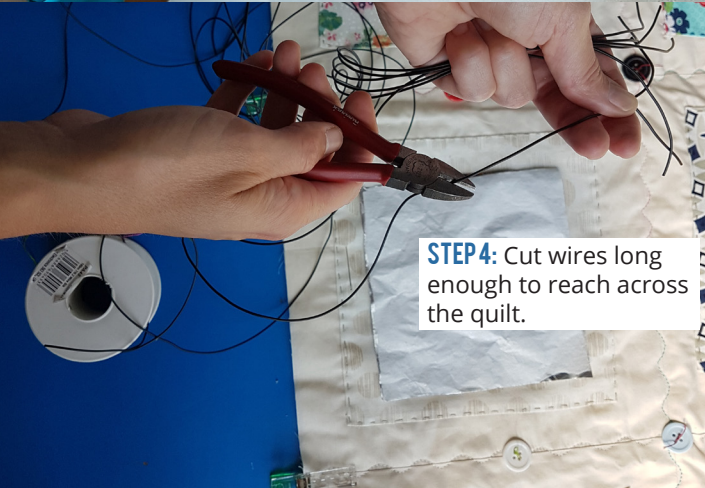
STEP3: Carefully, slide on a paper clip. Leave some space at the top.



STEP6: Twist the wire ends to keep the copper wire strands together. Then wrap the wire end around the paper clip top and twist again to secure the loop around the paper clip.



STEP7: Solder the wire end to the paper clip. This will secure the connection.



STEP4: Cut wires long enough to reach across the quilt.



STEP5: Uncoat the wires.



STEP8: Use a bit of insulating tape to protect the soldered connection from bending and breaking.

ATTACHING THE SENSORS TO THE QUILT

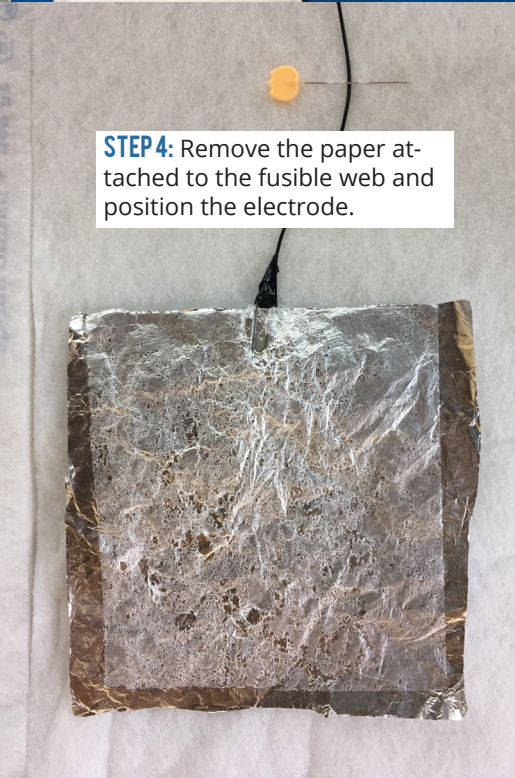
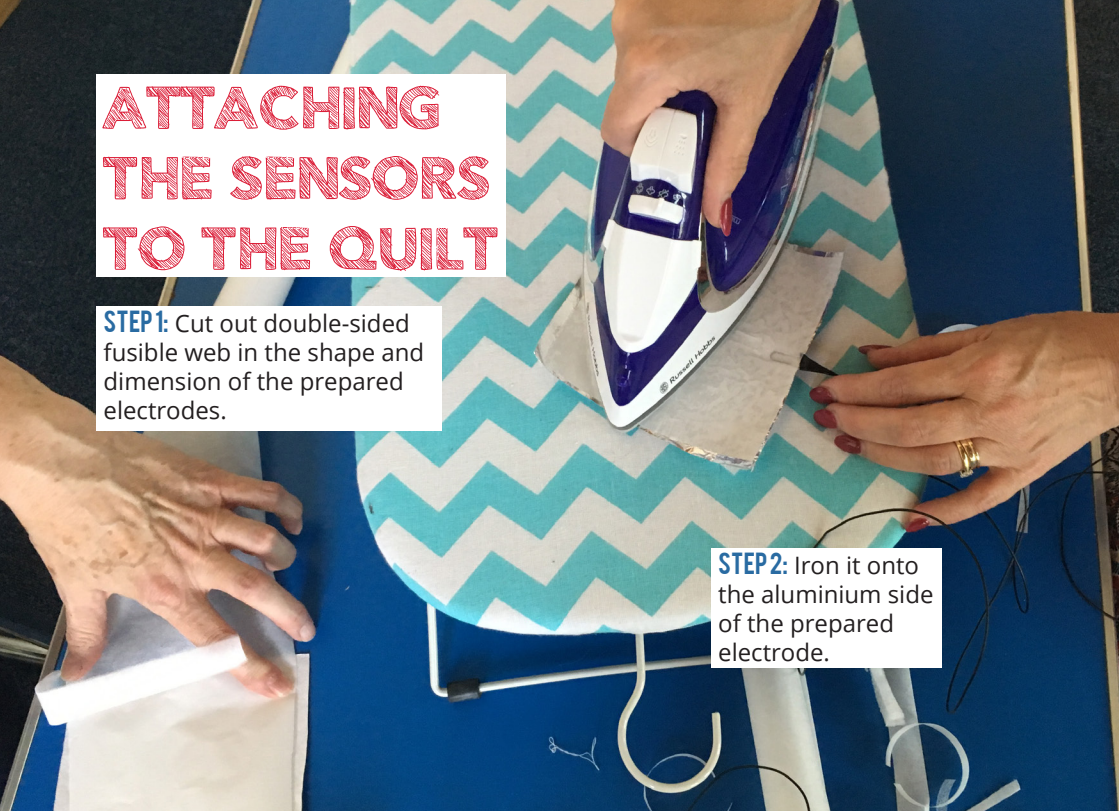
STEP 1: Cut out double-sided fusible web in the shape and dimension of the prepared electrodes.

STEP 2: Iron it onto the aluminium side of the prepared electrode.

STEP 4: Remove the paper attached to the fusible web and position the electrode.

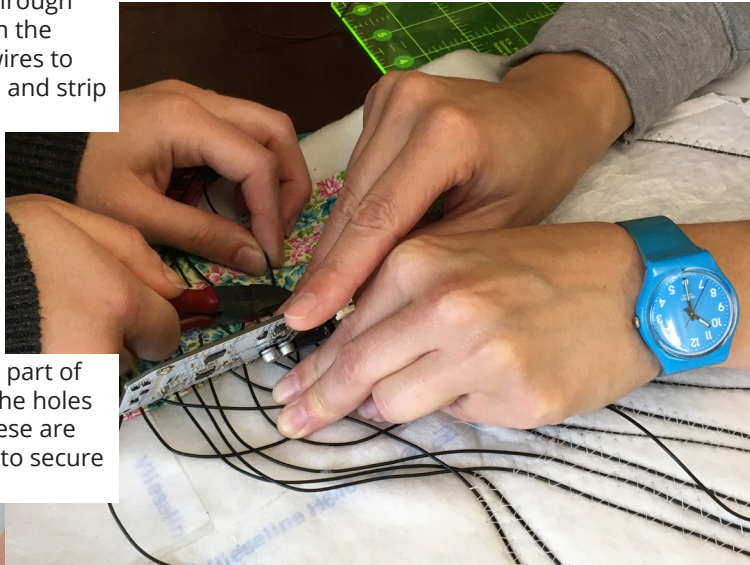
STEP 5: Turn around and iron onto back-side layer.

STEP 3: Decide on which parts of the quilt should be made interactive.

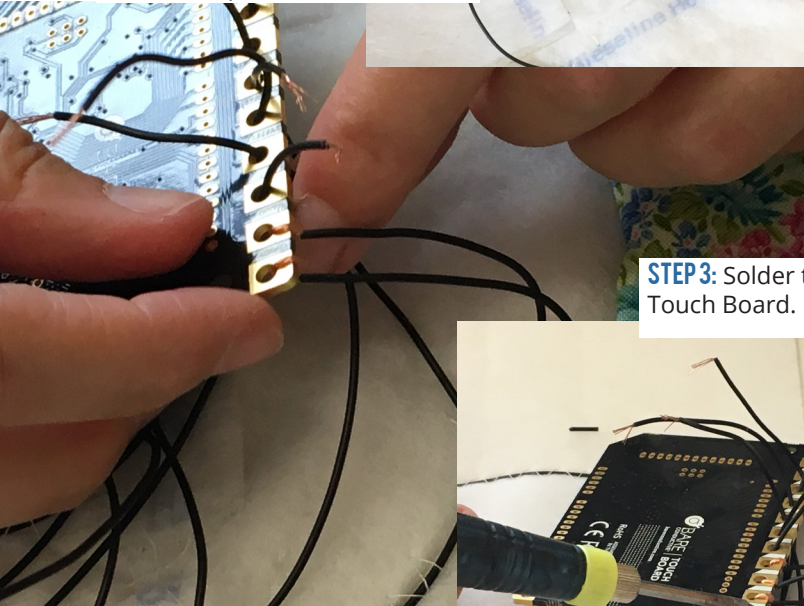


ATTACHING THE SENSORS TO THE TOUCH BOARD

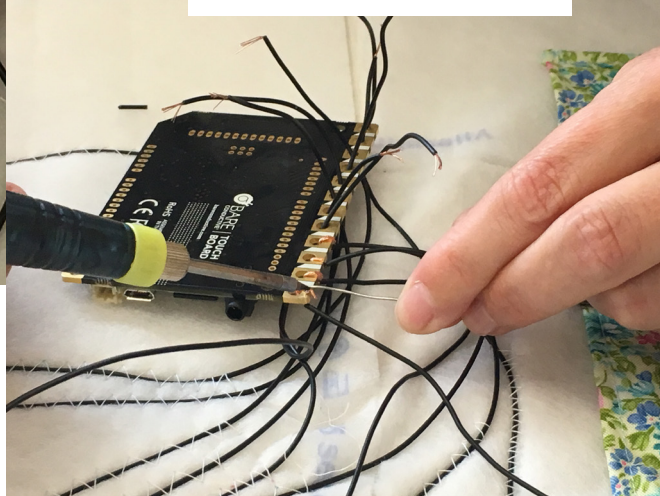
STEP 1: Feed the wires through the appropriate hole on the Touch board. Cut the wires to the appropriate length, and strip the plastic off the end.



STEP 2: Feed the copper part of the stripped wire into the holes on the touch board (these are the pins) and fold over to secure the wire in place.



STEP 3: Solder the wire to the Touch Board.



CHANGING THE AUDIO CLIPS ON THE QUILT

STEP 1: Unplug your touch board and take out the SD card. Plug it into your laptop. You may need an adapter to do this.

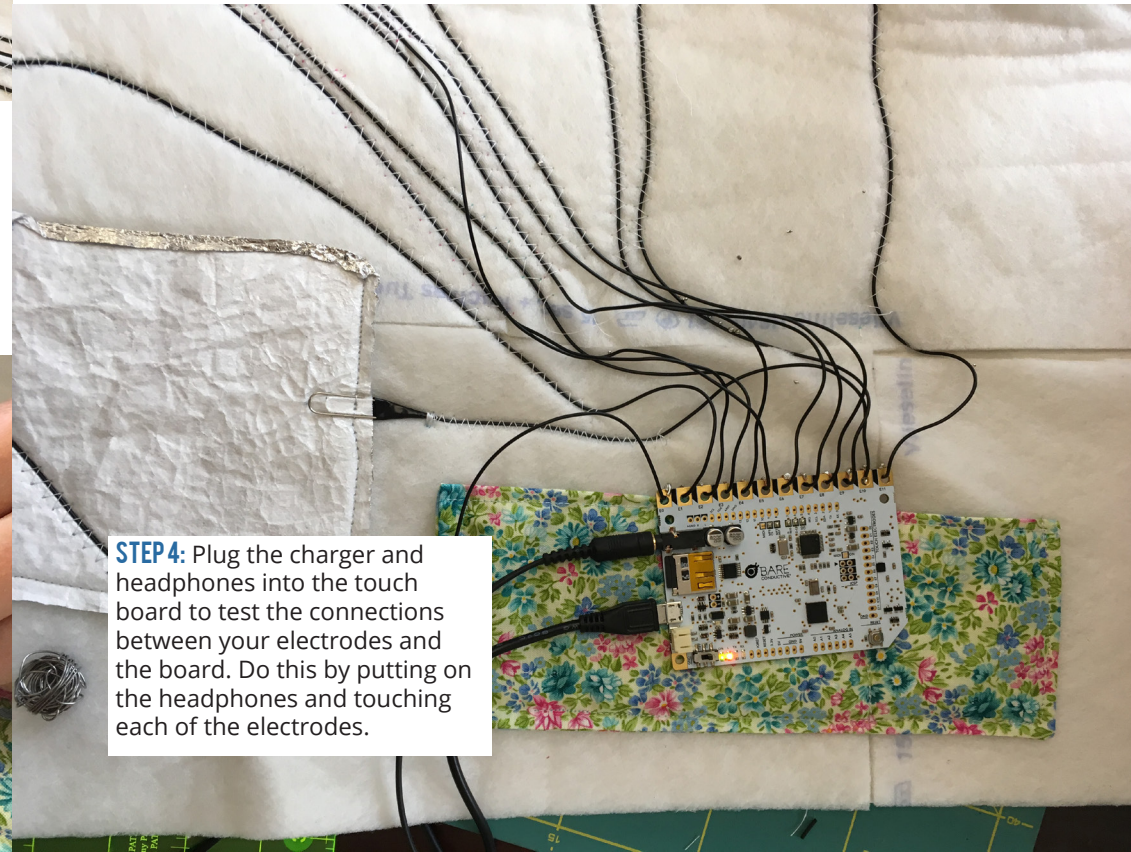
STEP 2: Open the SD card on your laptop. You will see several files and folders on the SD card. These have instructions of use as well as all the code that makes the touch interaction work.

STEP 3: You will see some .mp3 files that are titled 'TRACK000' and similar. These are the audio files that play when you touch the electrode attached to the pin on the touch board. Eg. pin 00 plays TRACK000

STEP 4: Rename the audio files you wish to play on the quilt to the same name as the .mp3 file on the BARE Conductive SD card (the 'TRACK000' files). They are case sensitive, so you must copy the name exactly.

STEP 5: Save the BARE Conductive test tracks on your laptop, then delete them from the SD card. Drag your renamed .mp3 files into the BARE Conductive folder.

STEP 6: Remove the SD card from your laptop and plug it into the touch board. Turn on the touch board and test your sensors again to make sure it all works.



STEP 4: Plug the charger and headphones into the touch board to test the connections between your electrodes and the board. Do this by putting on the headphones and touching each of the electrodes.

LINDA'S STORY

Linda first came to our attention when she was living in a B&B in North Tyneside where many vulnerable people end when they need emergency accommodation after becoming homeless. She was in a room near another client of ours who brought her to one of our weekly drop in sessions. Over a number of weeks as we got to know Linda we learned that she had a very complex and traumatic background of which Child and Adult sexual exploitation were a feature for her. We learned that she had recently lost residency of her two children following a decline in her mental health as a result of the trauma she had experienced and that following this she had ended up in a relationship with a male who had subjected her to domestic violence, from whom she was fleeing. We could also see that the B&B setting was very risky and that Linda would be at further risk of exploitation whilst there.

We began working with Linda both 1:1 and within the drop in sessions and she engaged well with this. We were able to find her some suitable housing and stabilise her financial situation giving her a platform to be able to address some of her trauma and really start working on her mental health as well as to reduce some of her vulnerabilities around harmful relationships. Around a year into us working with Linda, we set up a drop in session in Northumberland and Linda decided she would come and check it out. Within those sessions we had decided to try doing some sewing and with the help of a volunteer we learned some basic sewing techniques and decided to have a go at making a quilt. It very quickly became clear that needle-work was something that Linda has a talent for. We provided her with needles, thread and fabric to make use of at home and she came back each week to the drop in with the beautiful pieces she had sewn that week. She would say that she had sewn on the bus, in waiting rooms and even in the bath. She told us how calm and focussed she felt when she was sewing and how it allowed her a much-needed escape from traumatic memories and episodes of anxiety. Over the many months that we spent in the drop in sewing together we explored issues that had arisen that week, discussed memories good and bad from her past and ways of understanding these and we listened to audiobooks about mindfulness and sometimes music as Linda loves music!

As the project grew and developed from a drop in activity to the partnership quilt that it is today, so did Linda grow and develop. We could see each week that her stability and her self-esteem was increasing the more she made the time for herself to sew. She even made things for her sons, which they loved!

Around the same time, Linda began a relationship with an old friend, which quickly became serious despite her worries about allowing another man

into her life. Within our weekly sewing sessions we did a lot of work around healthy relationships and strategies for setting boundaries and it was lovely to see her putting these into practice. The couple were however very surprised to learn that Linda had fallen pregnant within a year of getting together. Linda was fearful that her baby would be removed from her care, as her two children had been previously, however she and her partner made the decision to continue with the pregnancy.

Linda has faced this head on and contacted social services to inform them of the pregnancy – she has worked incredibly hard to demonstrate that she has made enormous changes in her life. As a service we have supported and encouraged her with this throughout. When we were asked to report on Linda's progress, we were able to talk about the personal journey she has been on in the time we have known her for. How lovely to be able to say that since those early chaotic days when we first met her till now, that she has worked so hard to change her life and that the partnership quilt is the tangible evidence of the weeks of engagement and hard work on her part in doing so. Linda is now at home with her partner and new baby and all are happy and thriving. I hope that Linda is as proud of herself as we are of her.





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An interactive crafts project by



CHANGING Open Lab
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For more information visit:

<http://tinyurl.com/partnershipquilt>