

RSA Report

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Background

Global warming is a major problem that can not be easily overcome without educating the next generation about the mistakes and discoveries of the previous one.

In order to combat consumption of fossil fuels for power, renewable energy sources are being developed and deployed as replacements. There are many different types of renewable energies such as Biomass, Geothermal, Solar and Water and each is more suited to certain areas than others.

In order to educate the upcoming generation, they must first be attracted to the issues. using technologies and social aspects that they can relate to.

Most information about the current energy climate and the future of energy consumption is dry and linear with a patronising undertone which many younger people simply pay little attention to. In order to make an impact, the involvement of the younger generation needs to be active and not passive. Rather than telling what is and what isn't good or bad, they need to be informed on their own terms and in their own ways.

The best way to do this would be to take advantage of the current social networking trend.

The proposed stamps not only address the renewable energy resources but also the negative impact of fossil fuels on the environment and how each person can help by recycling.

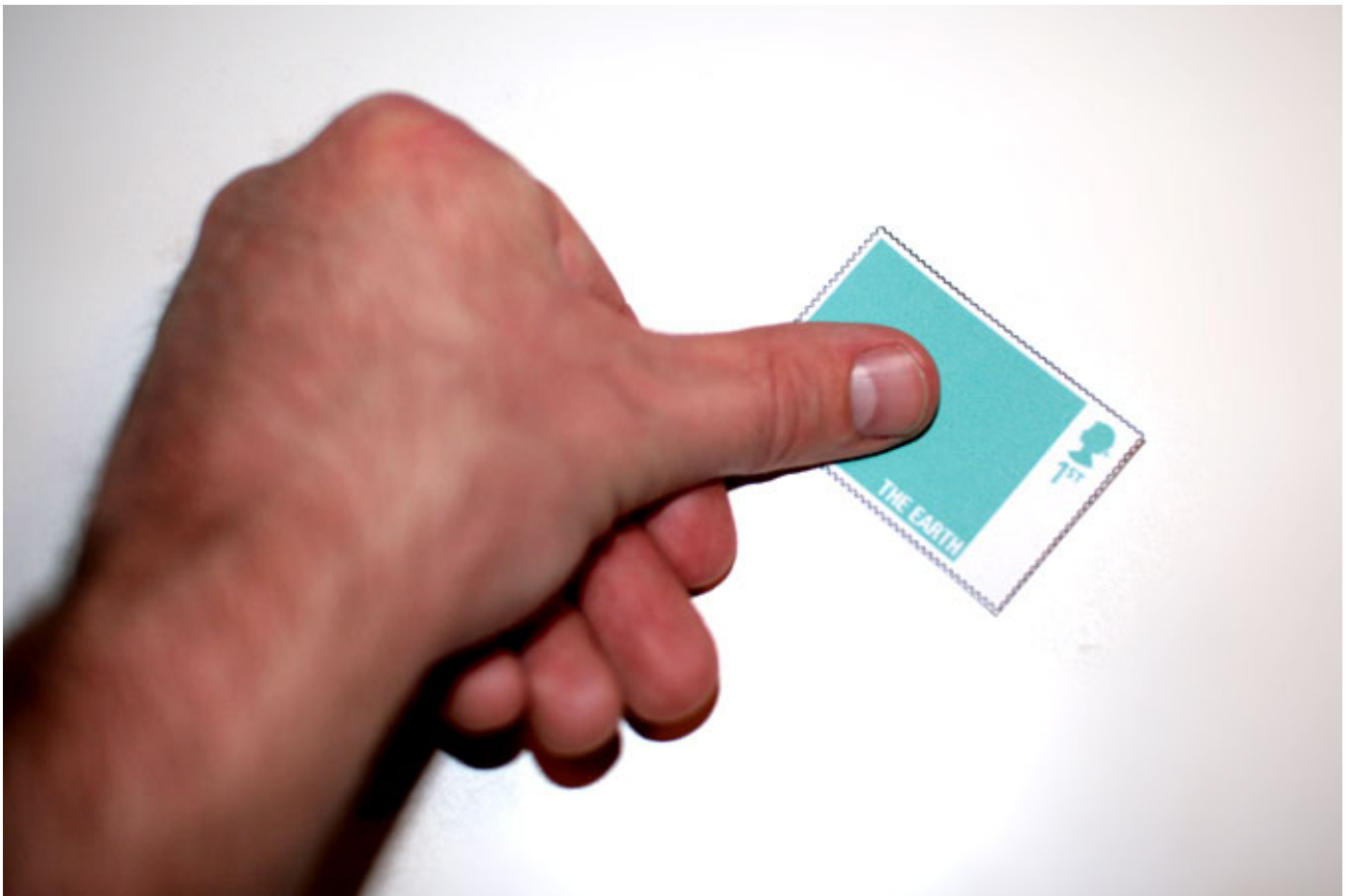
Royal Mail's Special Stamp programme is developed with regard to a number of criteria that include the following:

- to commemorate important anniversaries
- to commemorate events of national importance, as well as significant contemporary UK successes on the international stage
- to reflect the contribution of the UK to world affairs in the broadest range of activities, from the arts and humanities to science and technology
- to explore 'the British way of life', celebrating the diversity of cultures and interests within the UK
- to contribute to the cultural life of the UK through the patronage of art and design, and thereby act as a showcase for the best of contemporary British creative talent.

The programme is also designed to include a variety of subjects, imagery and techniques in order to appeal to the interests and tastes of different groups over the year's programme.

Concept Outline

Six stamps representing six areas of information regarding renewable energy sources and the current energy crisis. Made using thermochromic ink to reveal a QR tag enabling people to access a social network promoting photo sharing about problems and solutions.



Research

Research started by looking at interesting ways to represent the renewable energy resources and the details about them. New ways of interacting with stamps was also a research focus and thermochromic ink was targeted as an active way of increasing attention to the stamp and therefore the message.

QR tags represent another way to engage with the audience and gain even further attention to the subject with an ongoing conversation developing between people on the same social plane. Informing each other and not being told.

Development

Inspiration came from the Carling advertising campaign "never hand your mate a warm beer again" with the use of thermochromic inks on the side of the cans, designed to show optimal chilled drinking temperature.

Time was spent researching and examining the properties of thermochromic ink and the ease of activating the colour changing process with fingers / hands.

Based on this colours were selected to represent the six suggested renewable energy resources.

Interesting and fun facts were sourced and refined to fit the confines of the stamp. The information would be revealed when the ink is activated.

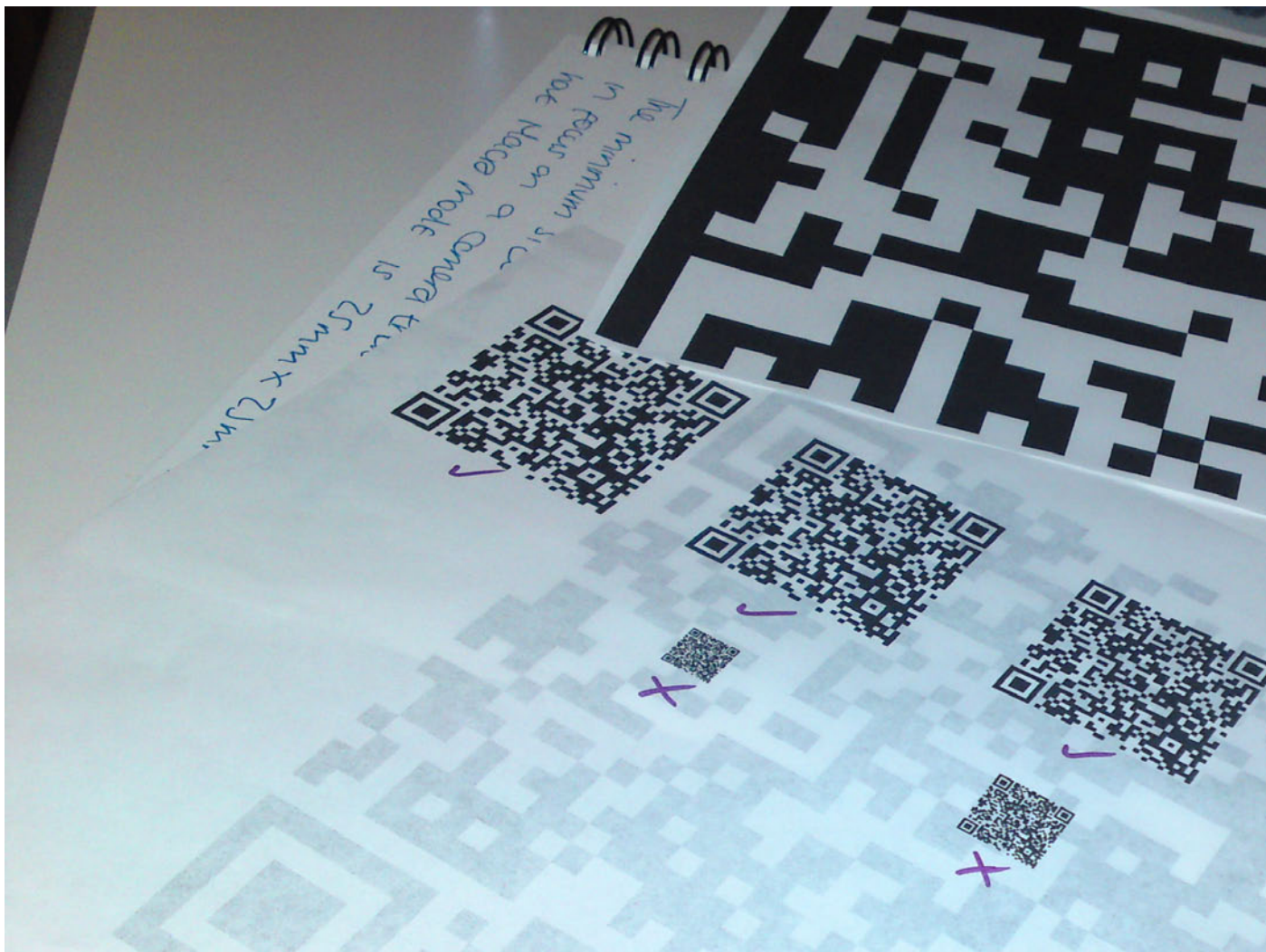
The size of the stamp was increased by 50% in width to accommodate the information more easily.

Contact was made with a number of print companies to seek further knowledge about the printing process and it's limitations, which led to using the colours available.

The impact of this was the designs that could be created using thermo-chromic inks as there are limited colours that can be printed.

To encourage the younger generation to take notice of the problems and potential solutions to the energy crisis, it was decided that a fact printed on the revealed surface of the stamp would not suffice.





QR tags represent an engaging portal from the physical to the virtual which is something the younger generation are becoming more and more involved with. The QR tag directs the mobile capture device to a URL which is accessed from a mobile device.

Social networking such as MySpace and Facebook are increasingly common and a vehicle for sharing ideas / media and values. It would be beneficial to tap into the area and allow people to inform each other rather than setting a pre-defined moral value.

A mobile social network utilising a simple, cross cultural medium, pictures, would be the most effective way to quickly convey information about the energy climate.

QR tags can do things other than provide information such as a URL or plain text, they can pre-fill an SMS text message. If the message was pre-filled and sent to a number charging more than a standard message as a donation, it could be set up with a renewable energy research fund which could also be a route to explore.

Colour representation was experimented with to show not only the type of renewable energy it was representing but to evoke an emotional response to the colour.

Green represents the earth, the environment and the strive towards a cleaner world. Recycling reduces the energy needed to produce new materials.

Brown represents the alternative energy resource biomass as well as the ground from which the seeds of change can grow.

Red represents geothermal energy and the heat that is beneath us, an untapped renewable resource.

Yellow represents solar energy, an everlasting source of energy. Enough sunlight falls on the earth every hour to power the world for a year.

Blue represents water which is a cleansing element and invokes a feeling of peace. While peaceful it also signifies power and such power can be harvested.

Black represents the world's dependency on fossil fuels, the pollution it causes and the darkness that is looming unless something is done soon.



Full Concept Details

The stamps use thermochromic ink which, when heated, turns transparent. Two different colours are layered to create a nice effect. Body heat is enough to activate the process.

When the ink is activated it turns transparent and reveals a QR tag underneath. The QR tag is then captured by a mobile device and automatically directs it to a mobile site.

The site contains contextual information related to the specific stamp as part of a photo sharing social network.

The network encourages people to take and share photos with their mobile device relating to the individual stamp's topic. This allows people to inform each other rather than being told what to do which increases retention of information and the likelihood of a change in lifestyle or habits. The inherent social aspect allows for real discussions about problems and solutions.

With the rise in mobile internet uptake and the increase in mobile camera resolutions, the concept relies on existing technologies. QR tag readers are available to any mobile device running the latest Java engine and can be downloaded for free. Many mobile devices are being sold with readers already installed and if this continues then the uptake of QR tag usage would naturally increase.

