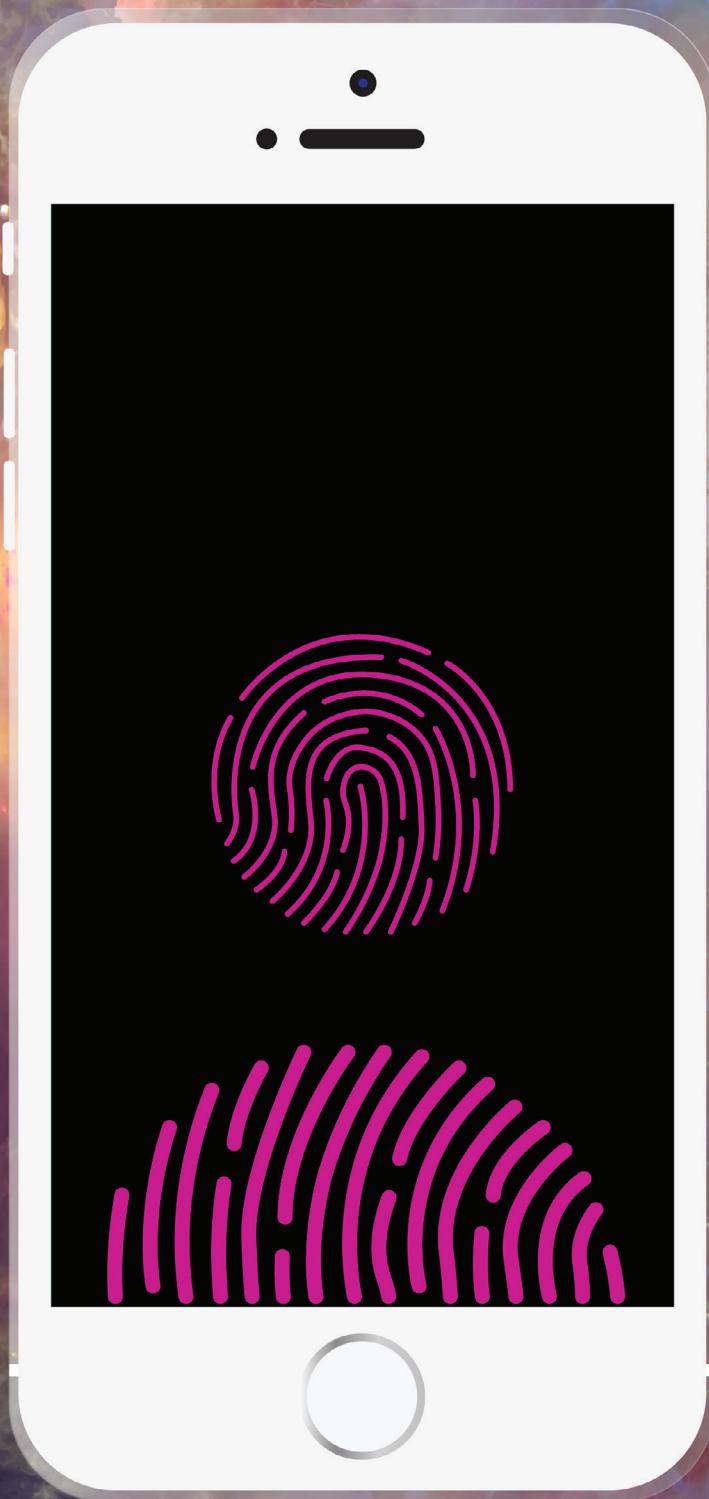


Aleksandar Vujinovic

The Future is Touch

The Feature That Revolutionised The Way
We Use Mobile Technology



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In 2007, **Steve Jobs** released the very first iPhone. What appeared to be a minimalistic, rectangular device quickly shifted into a revolutionary piece of technology as Jobs placed his finger on the screen. Suddenly, this unusual device became a navigation device for the finger; no keyboard, a responsive system and most importantly, freedom of control. Nowadays, we utilise our iPhones in a similar manner, where the touchscreen remains revolutionary and buttons have been replaced by virtual ones.

Now, 11 years later, the smartphone industry is dominated by touch screen phones. Phones that were once popular, such as the Blackberry, are becoming extinct due to their 'primal' features. In fact, for mobile phones to stand a chance in this extremely competitive industry, it is vital that they consist of a touchscreen and easy-to-navigate system. Therefore, it is safe to say that the touchscreen is among the dominating features of a successful mobile phone, and originates from Steve Job's' revolutionary perspective .



The vast majority of devices that incorporate this touch system utilise sensors to monitor and track the finger as it moves around the screen. The iPhone in particular uses electrical currents for a speedy-response time. This is referred to as **capacitive touch screens**, where a layer of capacitive material holds a small amount of electric charge. This charge is then altered as the user's finger makes contact with the screen.

Alongside the capacitive touch screen is the resistive technology. Unlike the capacitive technology, which responds to the contact between the finger and the screen, the resistive touch screen permits actual tapping. For example, when one would like to access an app, rather than scrolling. This would require a touch with a minor amount of force. This is translated to the iPhone screen where the top layer (as shown on the left) meets with the layer below it to complete an electronic circuit. This results in the permittance of the user upon attempted access.

Whilst the iPhone dominates the market with its capacitive and resistive technology, there is one major downside that is often looked upon. The use of these technologies in conjunction with one another means that the iPhone struggles to accept interactions from any externality other than a finger. This is because the technology that Apple utilises detects the conductivity released from the human finger. That is why objects such as a stylus will not work properly with their devices. In fact, this is arguably where Samsung has taken lead with its Note products. However, again, iPhone is able to counteract that feature with its multi-touch capabilities.

Now that we understand how the touch system of the iPhone works, and how it is possible, it is also important to understand the benefits associated with this feature. It is crucial to note that the iPhone's release marked the downfall of all the other major phones of the time, and that was due to its sheer advantage in both simplicity and efficiency.

Firstly, and above all else, touchscreen technology allows the user to operate and manoeuvre along the device at a fast pace, whilst maintaining ease of use. Unlike computer products, where the user must learn to use the mouse, keyboard and system, the iPhone allows the user to hop right into the action, and the best part of it all is that everybody has access to it; their fingers.

The touchscreen provides ease of use. Whilst navigating through the phone, touching on an appropriate destination has never been easier. Since the iPhone utilises resistive technology, it is almost certain that the user will arrive at the proper destination on the device, as their finger travels directly through to the phone. Lastly, accessibility is incredibly important for a device that aims to hit all target markets. The elderly, or those who are disabled, are offered a better chance at utilising the iPhone since they do not require any external devices, or prior knowledge at all.



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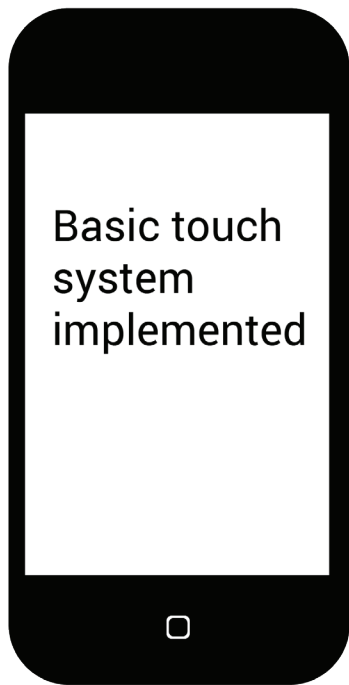
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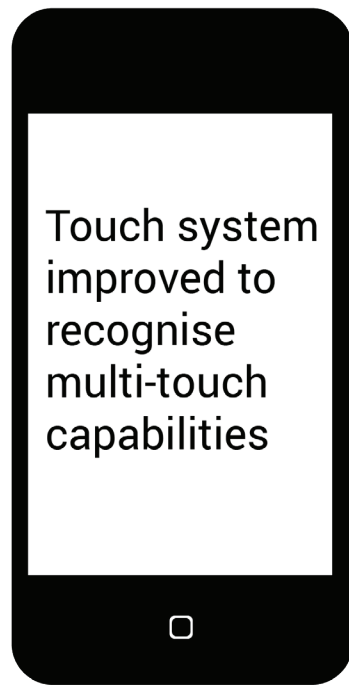
iPhone

2007



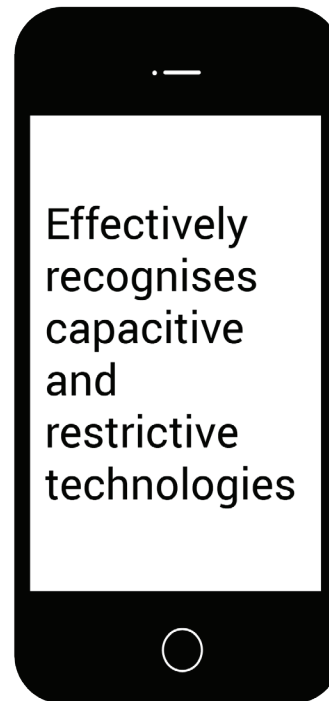
iPhone 4

2010



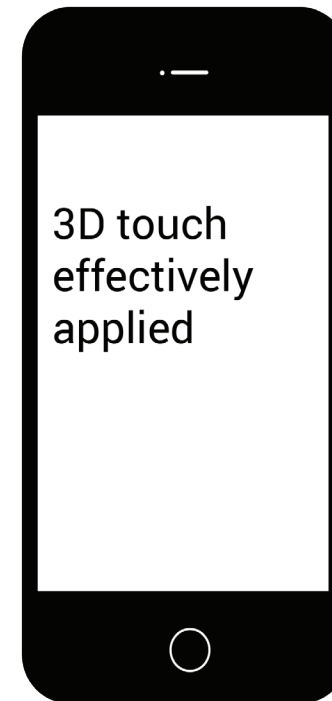
iPhone 6

2007



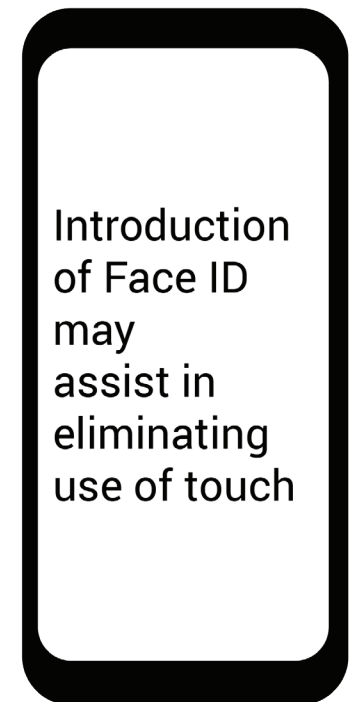
iPhone 7

2007



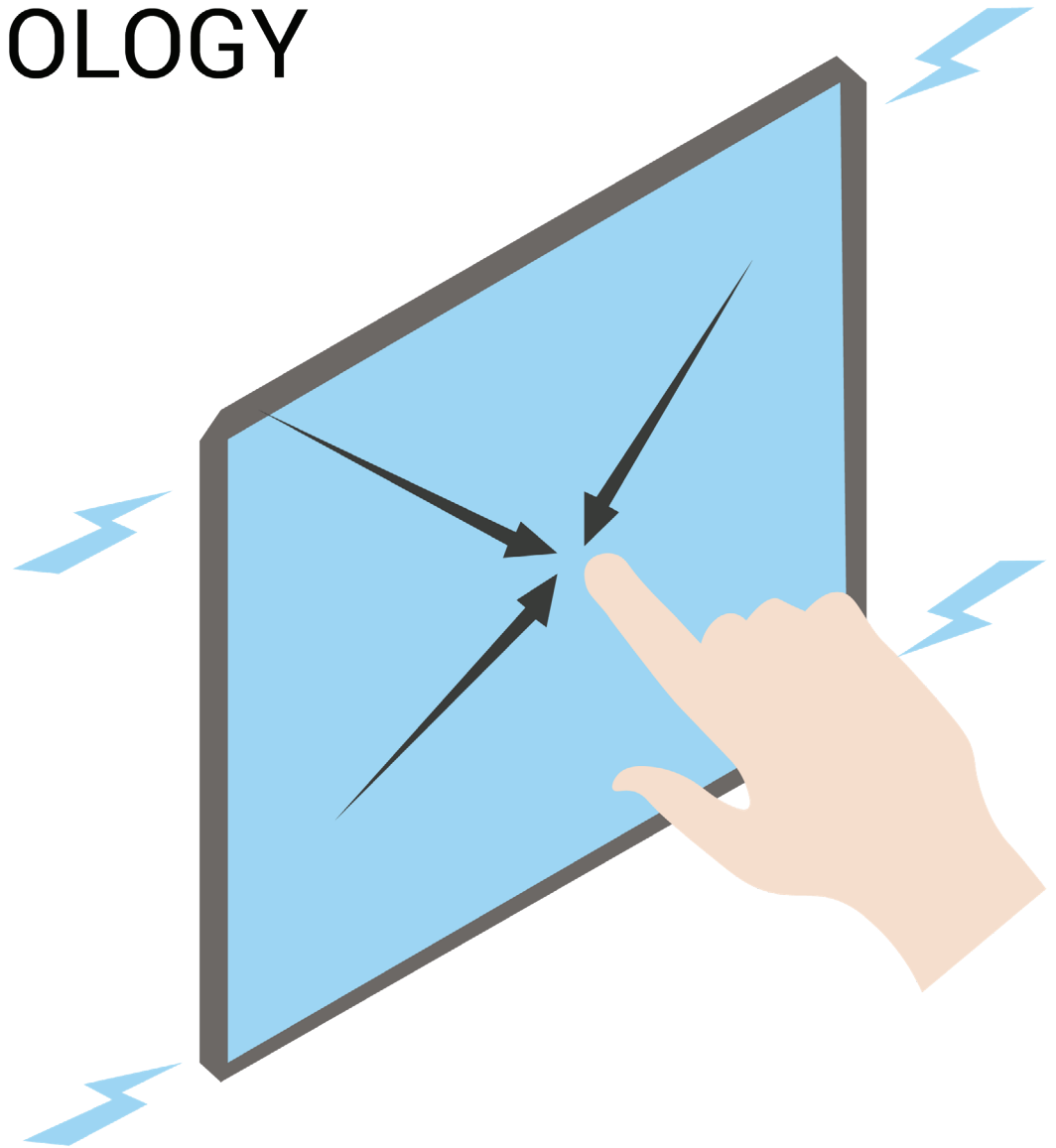
iPhone X

2007

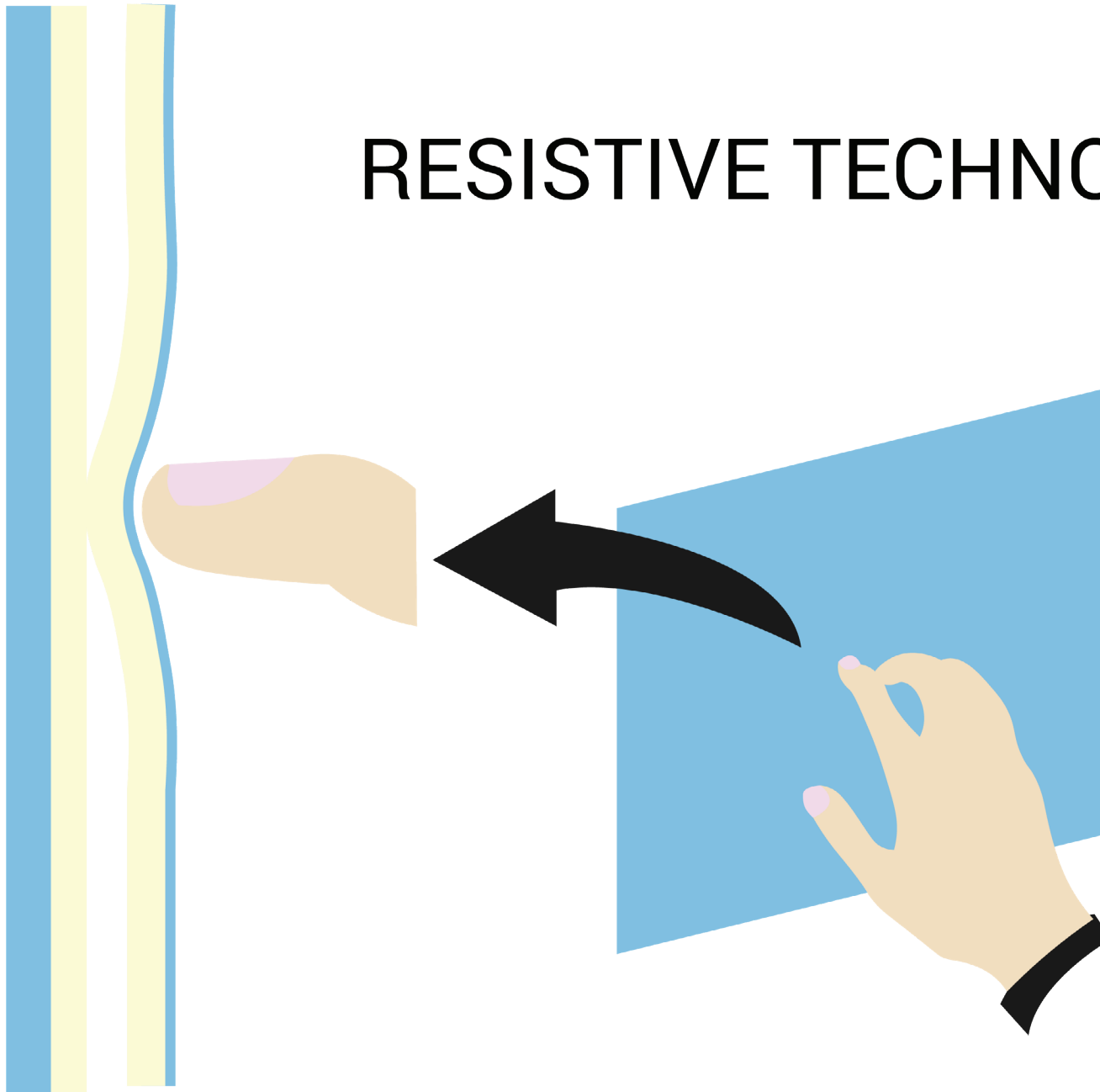


CAPACITIVE TECHNOLOGY

Capacitive technology utilises a thin surface layer and sensors at the edges of the screen. As the finger makes contact with the screen, a small electrical charge is transferred through to the conductor (the finger) to complete the circuit. Essentially, what this means is that once the finger touches the screen, the capacitive technology is able to identify where that finger is, so that it can track the finger and allow the user to use the device freely, and be in control. The finger acts as a cursor, guiding the screen through a minor electrical current.



RESISTIVE TECHNOLOGY



The screen that we see and connect with using our fingers is the surface layer of the touchscreen technology. Once pressed down, this layer makes contact with the secondary layer, which triggers a reaction that acts as a permitted destination.

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Alongside the capacitive touch screen is the resistive technology. Unlike the capacitive technology, which responds to the contact between the finger and the screen, the resistive touch screen permits actual tapping. For example, when one would like to access an app, rather than scrolling. This would require a touch with a minor amount of force. This is translated to the iPhone screen where the top layer (as shown on the left) meets with the layer below it to complete an electronic circuit. This results in the permittance of the user upon attempted access. performed analysis a generalized model for the assessment of the environmental impact of ICT products can be enabled.

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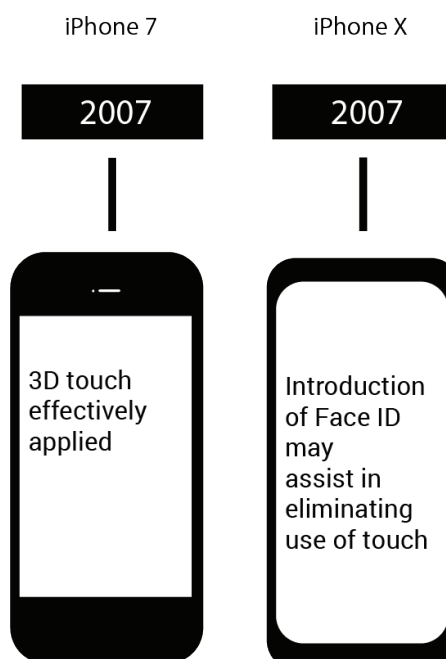
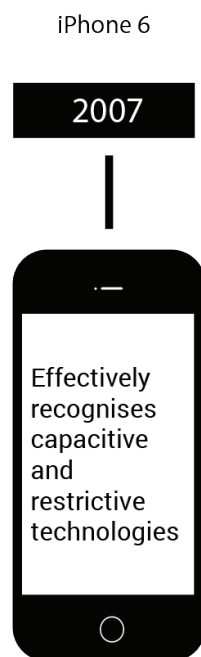
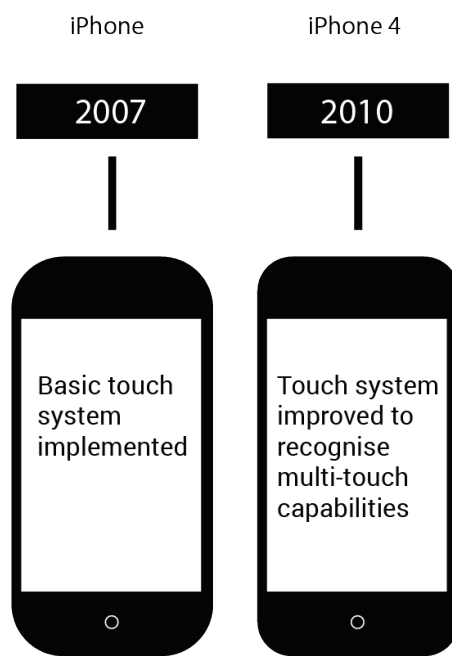
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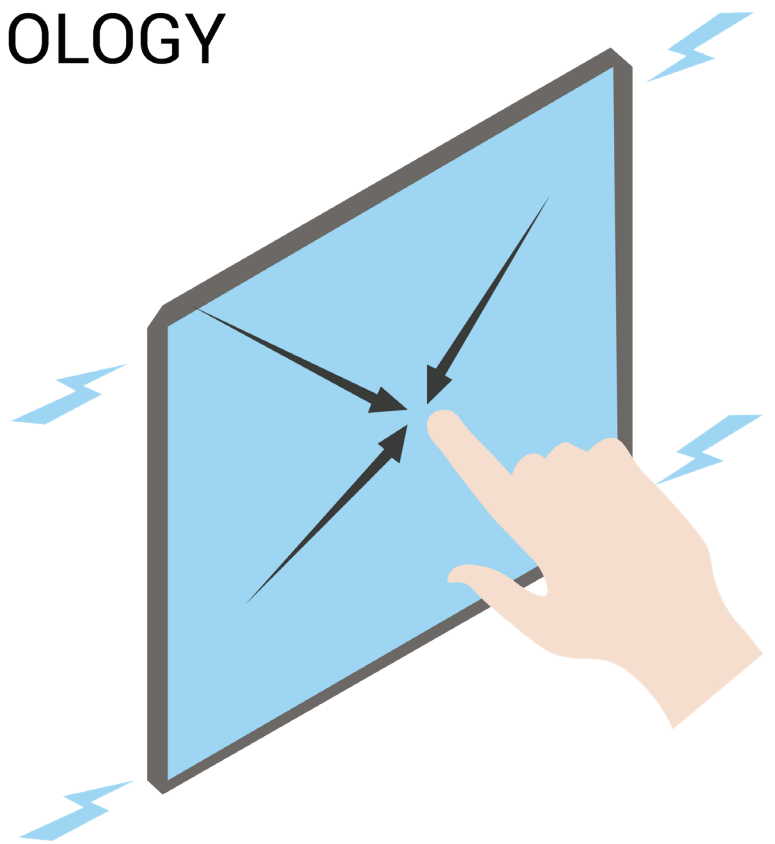
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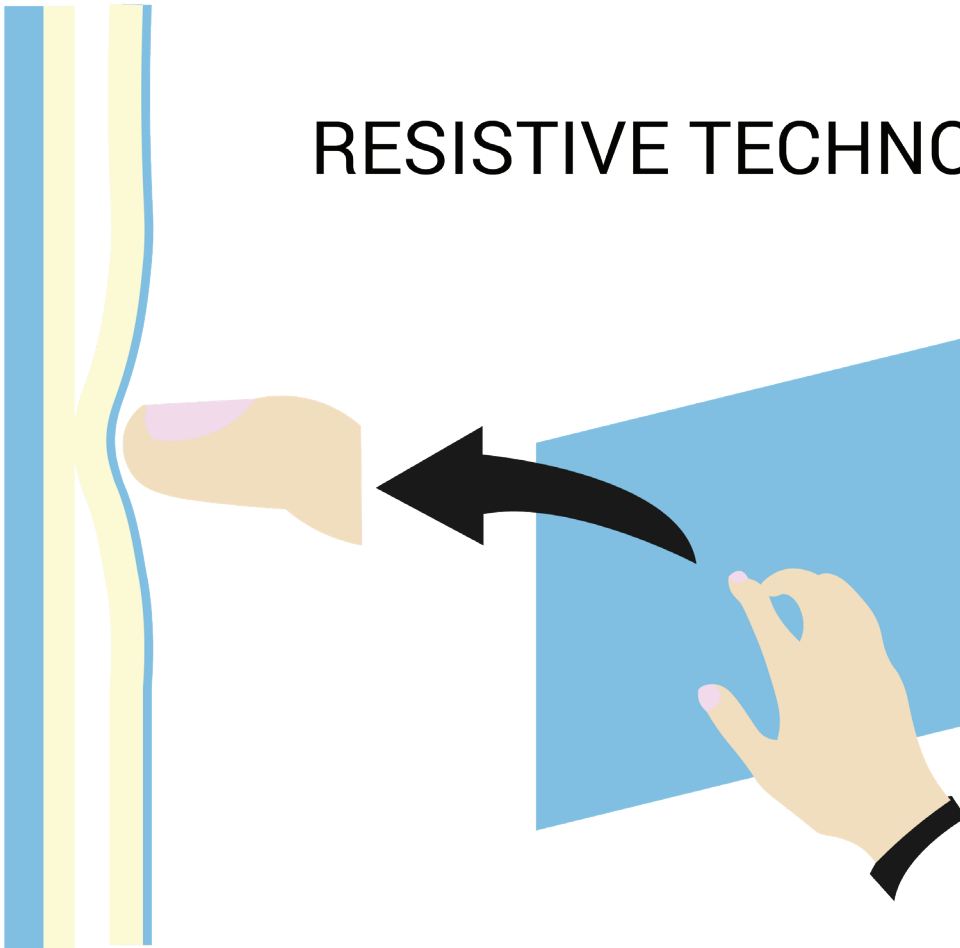


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