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**Smart Clothing, Smart Choice**

Smart clothing is a high tech invention made to make lives easier. With its steel wool infused cloth it allows humans to connect with their technology through their clothing. The conductive yarn allows people to interact with there devices without needing skin contact. The smart clothing is being knit into clothing articles such as mitten and gloves. No longer will people have to deal the heat escaping and time consuming task of taking of gloves just for a text. With smart clothing, people will be able to connect with friends without loosing precious heat. The steel wool while allowing for touch technology is tightly woven to bring comfort and warmth to the wearer of the clothing. Metals have positively charged valance electrons, which are free to move around. When the particles and free to move around, it causes the element to be conductive. Conductivity is a physical property, and steel is a metal, that is highly conductive. Touch screens are covered in a conductive, metallic layer, underneath a protective layer. When a person touches the screen, the two layers are pressed together, and an electric charge is able to conduct in that spot. The computer accounts to the change in the electric field and translates that to the operating system. Ellie Gervais, owner of smart clothing gloves thinks, “They are very useful in this day in age because when your hands are cold and you want to type, you can. They are innovative and helpful in the mists of winter when you don’t want to take your gloves off.” Ellie is just one of many happy customers that are pleased with their smart clothes. The conductive material allows for a strong connection between touch and tablet creating an effect as if the glove wasn’t there. The small treads of pliable steel make movement and touch easy for the smart clothing, all while maintaining comfort.

Not only does smart clothing allow people to connect to their technology but it can also help with safety. Certain smart clothes are designed to not only be stylish and warm, but safe as well. Clothing that is designed with sensors made to monitor the wearer’s health. “Clip-on sensors or wristbands can already monitor a wearer's vital signs, such as activity levels and sleep patterns. But the rigid form of these devices limits what signals they can pick up and they won't work if you forget to wear them.” The sensors can measure respiration rate, brain activity, heart rate, changes in body temperature, and measure other body movements. Sensor fusion algorithms allow the monitors to detect the different signals. Small microprocessors measure the Electrocardiography (EKG), which is the “electrical activity of the heart.” The EKG is recorded over a period of time; a radio signal or Bluetooth is transited to a watch or phone. The sensors can be sown into underwear to make changing clothes easier. As McMaster said, "You can put the sensor wherever you want, using conductive yarn you can control the structure and the conductivity in that area and make it more or less conductive, measure compressive force, tensile force, temperature."  Having these sensors had many benefits. Athletes can used them to track their heart rates, and measure their improvements in training. People with medical issues can use the devices to track their body functions, which can help keep them safe.

Whether smart cloth are used for recreation or for maintain health, they are a huge benefit to any owner. The new technology is always growing, and making new developments every day. Smart clothing is a great investment that can be used in many ways, and is an aid for many lives. Smart clothing is a futuristic development that will surely benefit society.