

to predict or anticipate keystrokes based on a word or sentence entered. In response to the anticipation, different keys can be raised, indented, or texturized in order to increase typing speeds.

An embodiment of the present invention provides electronic advertising processes. Advertisement **416** can be sold to an advertiser for a certain price for having elevated portions **416₁** and **416₃** and indentation **416₂** on at least one part or the entire advertisement. Advertisement **418** can be sold to an advertiser for a different price, higher or lower, for having elevated portions **418₁** and **418₂** having different heights from other advertisements and can be based in combination with location determined by GPS device **114**. Advertisement **419** can be sold to an advertiser for a different price for having a plurality of elevated, indented, or texturized portions **4191**.

An embodiment of the present invention provides electronic business processes. A “Buy Now” button is provided with an elevated circular portion **422₁** and a square portion **422₂**. The “Buy Now” button is associated with triggering the purchasing of shirt **424** by sending a request to a server (not shown) over one or more network adapters **128**. For shirt **424**, a texturizing portion **426** is provided to replicate or simulate the surface of shirt **424**. Texturizing portion **426** can be a combination of elevated and indented cells. Although a shirt **424** is shown, texturizing portion **426** can be used to provide surface information for any product being sold or displayed on display device **402** such as electronics, home goods, jewelry, etc.

Using touch detectors **124** in combination with display(s) elevation, indenting, or texturizing controller **121**, shirt **424** can be rotated in response to a multitouch input while texturizing portion **426** is dynamically changed to reflect the different surfaces or materials used in the product. Shirt **424** can be zoomed in and out using multitouch inputs detected by touch detectors **124** with each zoom level reflecting texture differences on portion **426**. For instance, a zoomed in view can be more grainy or rough compared to a zoomed out view. The zoom levels can also be configured with a fading in or out effect by one or more processors **102** and can involve retrieving additional information from a server (not shown) over one or more network adapters **128**. Moreover, if certain rare or uncommon materials cannot be replicated or simulated by texturizing portion **426**, legend **425** identifies or associates different materials, such as rabbit skin, llama wool, and rare silk, by texturized portions **425₁**, **425₂**, and **425₃**, respectively. Beyond the examples of fabrics, other materials like metals, plastics, glass, wood, etc. can be replicated or simulated by texturizing portion **426**.

Still referring to FIG. 4, an embodiment of the present invention provides an electronic game with elevated, indented, or texturizing portion **428** (hereinafter “portion **428**”), such as tic-tac-toe. Portion **428** can detect different pressure forces when pushed down, pushed sideways, or pulled sideways providing another metric or feature for the man machine interface. These different pressure forces can be detected by pressure sensors **123** in combination with touch detectors **124** and/or display(s) elevation, indenting, or texturizing controller **121** by measuring gradient, force, or potential difference values of touches to raised portions in portion **428**. Another gaming application comprises portion **428** emulating a piano or guitar.

Moreover, a game can receive as inputs flicks, pinches, or scratches to portion **428** and generate an action on display device **402** in response to each detected action differently. A pinch to a raised portion of **428** can represent an object or block being picked up or opened in a game or any other

simulated environment. Portion **428** can also control scrolling or drag and drop functions in combination with multitouch inputs detected by touch detectors **124**. In another embodiment, certain portions **428** can be used as a miniature joystick or pointing stick for 360 degrees rotational input that is detected by pressure sensors **123** in combination with touch detectors **124** and/or display(s) elevation, indenting, or texturizing controller **121**. A three dimensional accelerometer can be included in sensors **126** to be used in combination with display(s) elevation, indenting, or texturizing controller **121** to raise part of portion **428** in response to a programmed action in the game. Portion **428** can also be used to simulate or replicate a lottery scratching/rubbing game or a children’s productivity game, as desired. Portion **428** can also provide a gaming feature where tilting or rotation detected by an accelerometer in sensors **126** raises some portions while indenting others for four dimensional motion gaming.

In another embodiment, portion **428** can provide online collaboration, online conferencing, social networking, or online dating. In response to push or pull input on a networked computing device (not shown) having an elevated, indented, or texturized display device, portion **428** provides feedback, similar to a poke on Facebook. In online conferencing, tactile inputs to portion **428** can be used during a video conference application for additional interaction between conversing parties. For social networking, adult entertainment can be enhanced by portion **428** providing stimulation in connection with a video, image, or audio media on display device **402**.

Additional processes exist within the medical field for online collaboration. Portion **428** can provide remote medical diagnostics and measurements, such as a pressure test, over a network using one or more network adapters **128** and pressure sensors **123** in combination with touch detectors **124** and/or display(s) elevation, indenting, or texturizing controller **121**. Diagnostics and measurements include tactile for motor skills, respiratory for testing lung pressure by a person blowing on portion **428**, or muscular by measuring range of motion and strength, as desired. Therefore, portion **428** can provide bi-directional information exchange.

Still referring to medical processes, portion **428** can be used for the elderly or disabled to provide simple, small scale physical therapy exercises for the hand or fingers by allowing a user to pull raised portions at different tensions and resistances or pickup objects. This is particularly useful for stroke victims by providing mental therapy, exercises and massaging of small muscles and ligaments.

In another embodiment, portion **428** can be used to provide a plurality of processes or applications. Portion **428** can simulate maps, topography, geography, imagery, or location service processes in combination with GPS device **114**. Portion **428** can display mountainous regions on a map by elevating and oceans by indenting. Portion **428** can follow a musical sequence being played on device **100** for a ringtone during a received call or song. Moreover, portion **428** can be used to display content in an email, 3rd Generation Partnership Project (3GPP) or 3GPP2 short message service (SMS) text message, 3GPP or 3GPP2 multimedia message service (MMS) message, an image or video motion in an MMS message, PDF application, word document, excel graphs, excel charts, four dimensional (4-D) screen-saver, 4-D art, 4-D drawings, 3-D imagery, a 3-D sculpture, a 4-D “etch-a-sketch”, or architecture designs using scalable or vector graphics. Any of the content given above and displayed by portion **428** may be transmitted or received over one or more network adapters **128**.