

48. A computer program product for classifying an input event, the computer program product comprising:

a computer readable medium; and

computer program instructions, encoded on the medium, for controlling a processor to perform the operations of:

receiving a first stimulus, resulting from user action, in a visual domain;

receiving a second stimulus, resulting from user action, in an auditory domain;

classifying the first stimulus according to at least a time of occurrence;

classifying the second stimulus according to at least a time of occurrence; and

responsive to the classifying steps indicating substantial simultaneity of the first and second stimuli, classifying the stimuli as associated with a single user input event.

49. The computer program product of claim 48, wherein:

classifying the first stimulus comprises determining a time for the corresponding user action; and

classifying the second stimulus comprises determining a time for the corresponding user action.

50. The computer program product of claim 49, wherein:

determining a time comprises reading a time stamp.

51. The computer program product of claim 47 or **48**, further comprising computer program instructions, encoded on the medium, for controlling a processor to perform the operations of:

generating a vector of visual features based on the first stimulus;

generating a vector of acoustic features based on the second stimulus;

comparing the generated vectors to user action descriptors for a plurality of user actions; and

responsive to the comparison indicating a match, outputting a signal indicating a recognized user action.

52. The computer program product of claim 47 or **48**, wherein the single user input event comprises a keystroke.

53. The computer program product of claim 47 or **48**, wherein each user action comprises a physical gesture.

54. The computer program product of claim 47 or **48**, wherein each user action comprises at least one virtual key press.

55. The computer program product of claim 47 or **48**, wherein receiving a first stimulus comprises receiving a stimulus at a camera.

56. The computer program product of claim 47 or **48**, wherein receiving a second stimulus comprises receiving a stimulus at a microphone.

57. The computer program product of claim 47 or **48**, further comprising computer program instructions, encoded on the medium, for controlling a processor to perform the operations of:

determining a series of waveform signals from the received second stimulus; and

comparing the waveform signals to at least one predetermined waveform sample to determine occurrence and time of at least one auditory event.

58. The computer program product of claim 47 or **48**, further comprising computer program instructions, encoded on the medium, for controlling a processor to perform the operations of:

determining a series of sound intensity values from the received second stimulus; and

comparing the sound intensity values with at a threshold value to determine occurrence and time of at least one auditory event.

59. The computer program product of claim 47 or **48**, wherein receiving a second stimulus comprises receiving an acoustic stimulus representing a user's taps on a surface.

60. The computer program product of claim 47 or **48**, further comprising computer program instructions, encoded on the medium, for controlling a processor to perform the operation of:

responsive to the stimuli being classified as associated with a single user input event, transmitting a command associated with the user input event.

61. The computer program product of claim 47 or **48**, further comprising computer program instructions, encoded on the medium, for controlling a processor to perform the operations of:

determining a metric measuring relative force of the user action; and

generating a parameter for the user input event based on the determined force metric.

62. The computer program product of claim 47 or **48**, further comprising computer program instructions, encoded on the medium, for controlling a processor to perform the operation of transmitting the classified input event to one selected from the group consisting of:

a computer;

a handheld computer;

a personal digital assistant;

a musical instrument; and

a remote control.

63. The computer program product of claim 47, further comprising computer program instructions, encoded on the medium, for controlling a processor to perform the operations of:

for each received stimulus, determining a probability that the stimulus represents an intended user action; and

combining the determined probabilities to determine an overall probability that the received stimuli collectively represent a single intended user action.

64. The computer program product of claim 47, further comprising computer program instructions, encoded on the medium, for controlling a processor to perform the operations of:

for each received stimulus, determining a time for the corresponding user action; and