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Newell et al.

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(54) **METHOD AND SYSTEM FOR CONTROLLING PRESENTATION OF INFORMATION TO A USER BASED ON THE USER'S CONDITION**

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(58) **Field of Search** 345/8, 169, 158, 345/2.1, 3.1, 700, 751, 762; 708/139; 704/270; 710/8; 705/27

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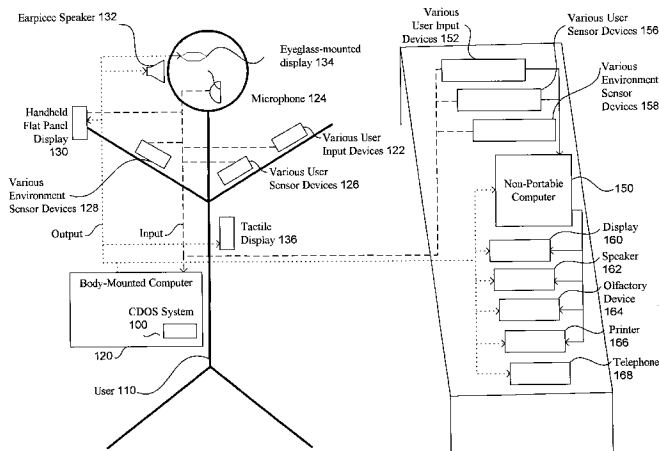
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(57) **ABSTRACT**

A system for controlling presentation of information to a user based on the user's current condition. In particular, the system monitors the user and the user's environment, and creates and maintains an updated model of the current condition of the user. The user condition can include a variety of condition variables, including abstract concepts such as the user's current cognitive load, desired level of privacy for output information, and desired scope of audience for output information. Upon receiving output information to be presented to the user (e.g., from an application program), the system determines an appropriate output device and an appropriate format with which to present the information to the user, and then presents the output information. The system can also receive description information about the output information that describes relevant factors for determining when and how to present the output information (e.g., the importance and urgency of the output information, the consequences of the user not receiving or ignoring the output information, etc.). Some versions of the system execute on a wearable computer having a variety of available output display devices.

88 Claims, 9 Drawing Sheets



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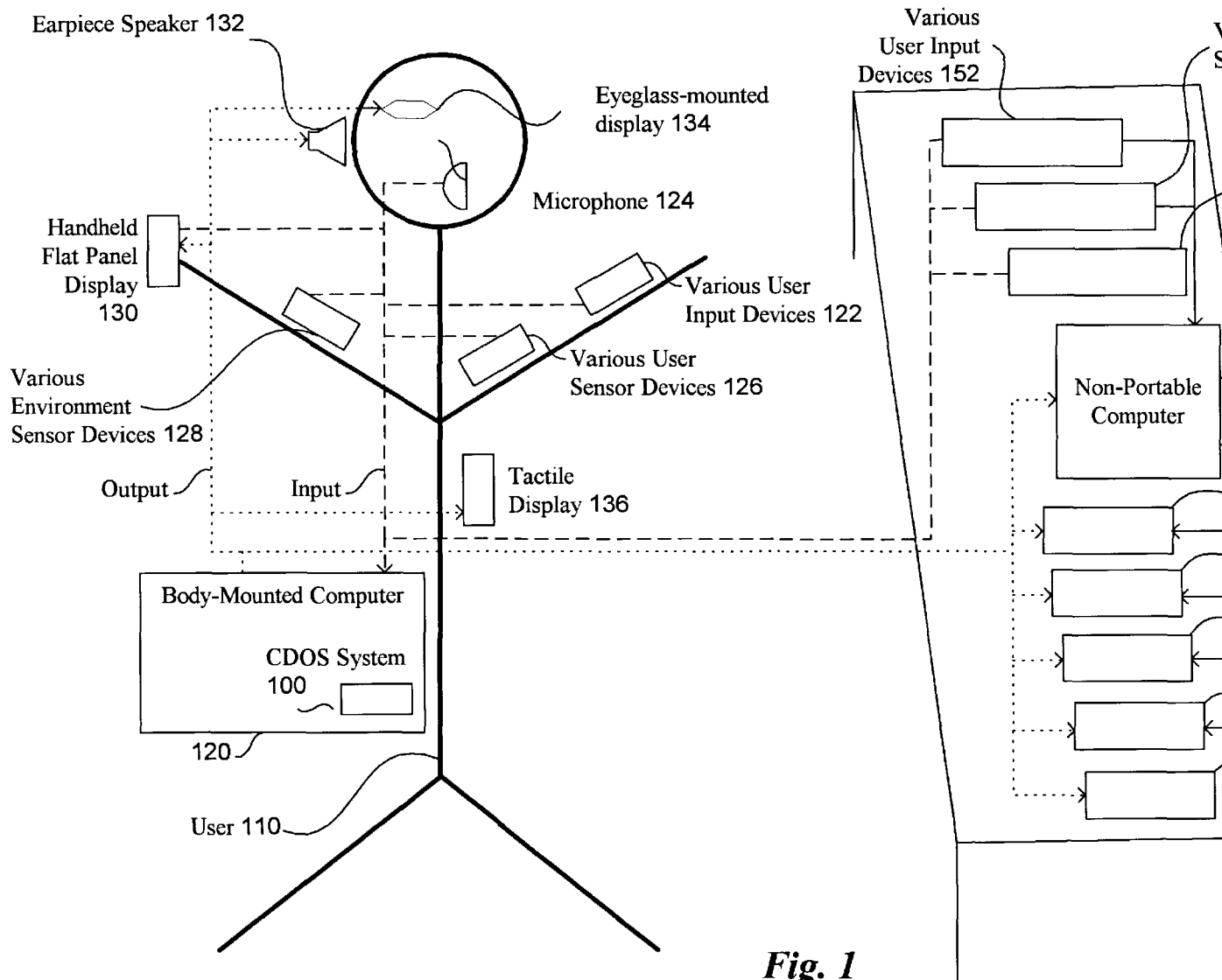


Fig. 1

Fig. 2

Body Mounted Computer 120

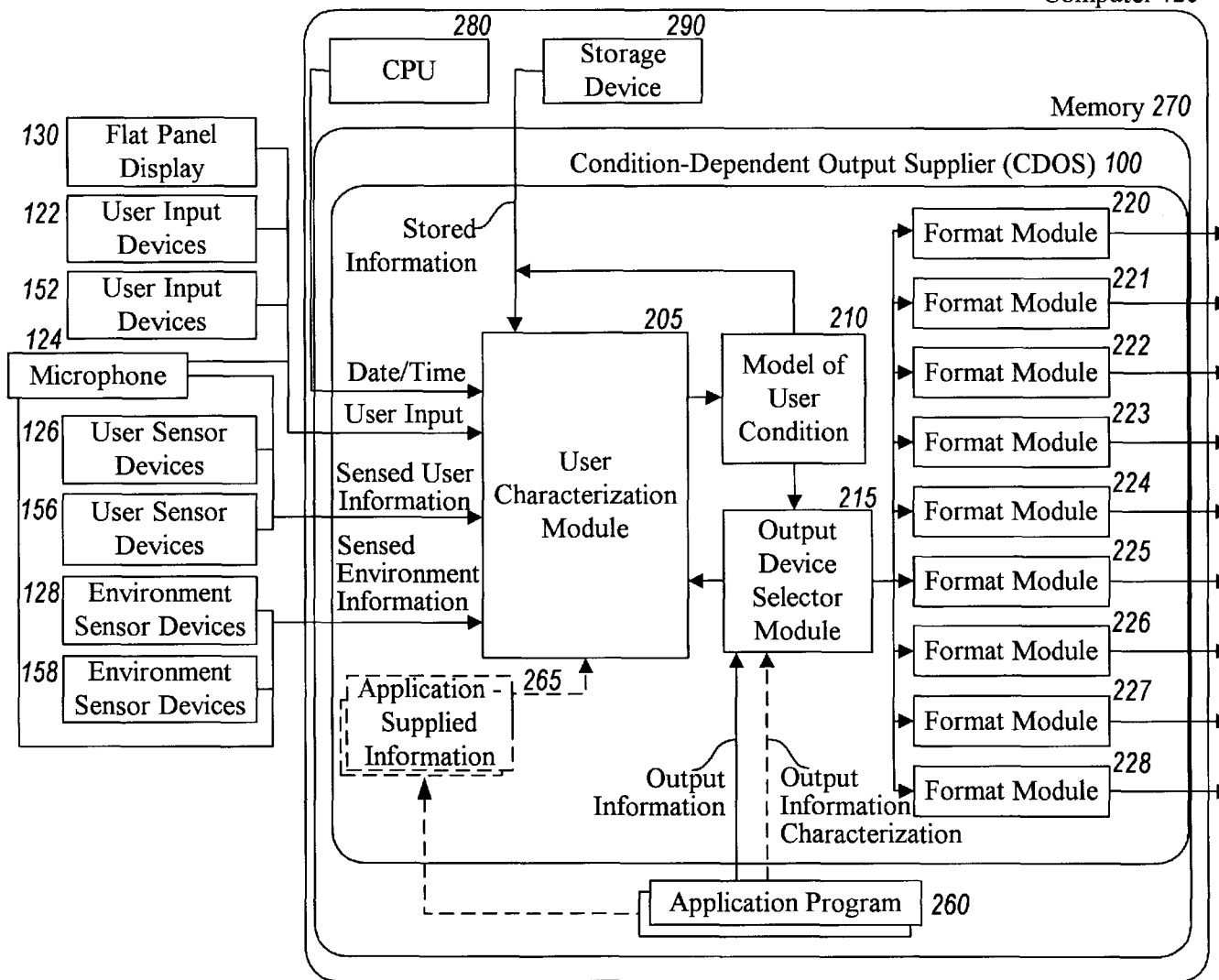


Fig. 3

Model of User Condition

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User: X Time: 14:22 Date 10/15/XX		
Latitude	37°55.3' N	
Longitude	95°24.7' W	
Altitude	102'	
Heart Rate	57 beats/minute	
Blood Pressure	125 / 80	
Last User Input	Voice Command "Stop Recording"	
Ambient Temperature	67°F	
Ambient Noise	20 dB	
Location	Office	
Speed	2 MPH	+/- 10%
Nearby Objects	Desk	
Nearby People	Physical: None. Audio: "Doug Smith"	
User Activity	Talking on Cell Phone, Walking	Highly Likely
Cognitive Load	77	
Level of Privacy	Company, Executive	
Scope of Audience	Self	
Application X-Factor 1	Normal: Mean-23, Std Dev 3	
User Format Preference	Visual > Auditory	
User Device Preference	Eyeglass Mounted Display	

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