Literal and Stylised Representations
Ethernet Traffic representations (Literal)
Live Wire (Natalie Jeremijenko, artist-in-residence Xerox PARC) – Stylised representation of Ethernet traffic

- Plastic cord hangs from a small electric motor mounted on the ceiling
- Motor is electrically connected to the Ethernet network
- Each passing packet of information causes a tiny twitch in the motor, which wiggles the wire in proportion to the amount of traffic on the net
- Focal and Peripheral attention
- Detailed and Abstracted representations
- Intended audience: technical / non-technical
**Music from Motion**

- **Category**: Artistic
- **Requirements**: Wearable, unobtrusive, free movement, 3-D motion in real-time, instantaneous sound response (msec.)
- **Users**: Dancer/choreographer; the audience as part of a theatre performance
- **Sensors**: 3-D Acc’meter, gyros, magnetometer
- **Actuators**: sound sequences mediated by movement
- **Data Analysis**: Calculate orientation in 3-D space from sensor data; Sensor data: 512Hz, Quaternion angles: 256Hz
- **Wireless protocol**: 2.4GHz Zigbee radio: 150kbits/s; TDMA protocol: 128Hz update rate with 12 devices; 64 Hz update rate with 24 devices.
Requirements for motion capture

• Capture, Analyse and Understand Motion
• Fully wireless
• No infrastructure (i.e. camera(s))
• Real-Time and Interactive
• Easy to use
• Banalise the technology
• Democratise its usage
Video at www.specknet.org
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