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IJoC Media, Hot and Cold

Seeing the Temperature in Weather Media

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How do weather media tell us about the temperature? We can trace the trajectory of the consumer's relationship to weather information from the local to the national to the global and back to the individual. In each case, weather media situate us, the weather consumer, in relation to temperature, weather phenomena, and space.

While in its most prosaic form one's situation within weather begins with the simple act of going outside, feeling the temperature, and looking at the sky, weather media have for the last half-century defined weather as a technological event. With the rise of weather media as a genre of cable television that began with the emergence in 1982 of the 24-hour Weather Channel learning about the weather became mediated and technologically inflected in entirely new ways. Thus began an era in which consumers received weather information through a satellite view of the world, looking, as Jody Berland once wrote, not up but down (Berland, 1996). Thus, the mediated experience of weather was altered by situating the viewer within a particular location according to that site's view from space. This point of view is so normalized that we rarely consider the fact that it situates us within weather from an enormously distanced viewpoint, visualizing the weather as an atmospheric system rather than something that happens on the ground. In this context, the weather watcher is asked to have a high level of literacy in weather imaging, data visualization, and data assimilation.

In the proliferation of weather images taken from space, the primary aspects of weather that are registered by the viewer are atmospheric—clouds, rain, snow, storms, etc. There are two kinds of images that predominate: satellite photographs and weather radar images, commonly known among meteorologists and their consumer audiences as Doppler Radar images. This nomenclature comes from the phenomenon known as the *Doppler effect*, which relates to how wave frequencies change when the source of those waves is moving relative to a person or object. *Doppler radar* measures the speed of detected objects within a defined field. While the Doppler effect is applied in many contexts, the rise of consumer weather media has resulted in its correlation in the public imagination specifically with the weather, aided by the way that weather newscasters fetishize the Doppler Radar in their broadcasts. *Pulse-Doppler radar* uses radio waves to register atmospheric activity and energy, such as precipitation, storms, and fog. Such weather visualization has the effect of conveying the sense that not only is the weather measurable and predictable, but that it can be controlled through technology.

Which brings me to the question of temperature. A satellite photograph and a Doppler Radar image do not represent temperature. Mapping the temperature involves data input from numerous on-the-ground measuring sites and translated into a map. This kind of data visualization through the

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conversion of data into representational form has a long history as a means of making data more understandable if not instantly readable. Graphs, maps, pie charts, and other data conversion conventions have evolved into increasingly complex digital forms of 3D modeling. The visualization of temperature data has a long history of graphs and charts in which temperature is rendered into gradations of color, most obviously red for heat and blue for cold.

The representation of temperature offers a complex set of challenges to weather media. As climate change continues to alter the world's temperature, the visual representation of temperature becomes more important in enhancing the public's understanding of the climate. Weather media is produced with an intended short attention span, so long-term weather phenomena do not fit well into the temporal framework of weather media coverage—which tends to be consumer-oriented along the lines of: What will the weather be today? Heat and drought, arguably two of the most devastating weather problems worldwide, tend to be underplayed in weather coverage precisely because they do not make for good TV, are long-term phenomena, and are not easily seen in satellite photos.

Temperature maps are invariably reductive, based on the notion that color is the best way to depict temperature. Thus, projections of rising world temperatures are invariably represented as a flattened global map with blue bands at the top. Purple is the coldest, gradating into blue, then light blue, yellow, green, and then red, changing in the extreme to maroon red. Here other color codes seep in—the coding of severe terrorist risk as red on the terrorism index; the air quality index where orange is unhealthy for some, red unhealthy for all, and maroon very unhealthy. So normalized are these codes that we rarely even think to analyze them. Is it the blue of ice and the red of fire that initially inspired them? Some of the weather temperature maps are soft and comforting shades of yellow and green, but most increasingly signal alarm through their color gradations. They trend toward red, in particular those depicting forecasted rising temperature heighten a sense of alarm—the dominance of red trending toward maroon is a key factor in this sense of anxiety and crisis. The threat of high temperature thus reads much more alarming than that of cold and is easily correlated with the threat of violence.

Weather temperature maps may be visualized by digital means, but they are decidedly analog in their visual aesthetics, with temperatures rising and falling on a continuous graphic scale, for instance. Significantly, the digitalization of weather media has meant that mobile and social media have expanded if not eclipsed the dominant role of television weather media. Here, we move from the global or national scale of the television or web map, which situates the viewer in a perspectival position in space, looking down on the world, to the individualized, mobile consumer whose weather and temperature system is a world of one. Hence, with the proliferation of apps that provide consumers with personalized weather data, the weather consumer is situated not within a mapped landscape, but on their mobile phone, with location and numerical temperature. Today my iPhone reads, "New York, Mostly Sunny, 21**°.**" Ironically, these digital data are stripped down, providing a quick snapshot of daily weather reduced to crude icons of sun, cloud, rain, wind, and snow. This sends the message in its instant availability that it provides all that one needs to know as an individualized weather consumer.

As weather becomes increasingly extreme and unpredictable, it has become one of the most prevalent topics of discussion on social media. This includes sharing images of mobile phone temperature

readings (often juxtaposed with readings from other, usually warmer, places around the world) and the more recent phenomenon (in particular during the cold weather of the winter of 2014) of the "weather selfie"—images in which people photograph themselves in notable weather contexts (most commonly dressed in layers for extreme cold). The weather selfie is also a way for social media users to distinguish their weather from that of their social network, in particular if they are vacationing in an alternate weather universe, so to speak. We have thus moved from measuring temperature as a community practice, with local weather watchers, to the consumer experience of the national and global television weather map, seen from space, to the representation of weather and temperature as individualized and handheld: weather temperature as a networked unit of one.

References

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