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Mapping PPS: A case study of story map journals for interactive health reporting

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Objective

A case study on the visual-material components of story map journals as visual, new media interactive health reporting used in population health surveillance. The story map journal is demonstrated an effective tool that visually reports, maps and tracks global support networks and health resources for post- polio (PPS) survivors.

Introduction

How are interactive story map journals situated within the genre of interactive, health science reporting? How can reporting information to public audiences be theorized through traditional and contemporary understandings of new media genres in technical, health and science communication [1-7]. Although the polio vaccine has eradicated the disease in the United States, and 99% worldwide [8], PPS has emerged as a present-day condition that continues to affect many polio survivors years after the initial onset and recovery. Since the symptoms of PPS are oftentimes mis-identified as other illnesses, the diagnosis and management of disease is especially challenging for PPS survivors due to the limited knowledge of and access to PPS resources and support networks [9-11].

In 2011, Esri created the ArcGIS story map initiative to meet a need for public audiences who sought how to critically think, better understand, communicate, and interact with world news events. ArcGIS is a geospatially-driven, new media platform that enables audiences to engage with interactive storytelling of news events. Public health and news reporting agencies are now turning to Esri and similar interactive, geospatially driven new media platforms for health and disease surveillance [12-14]. Esri's ArcGIS mobile and web technology platform visually reports, maps and tracks population health data information. With the emergence of such new media applications, it is therefore important to recognize multimodal, visualization strategies that investigate how interaction design choices within the story map journal influence and engage public health audiences. In the field of technical and professional communication [15], applied concept of visual-material rhetorics is a useful mode of inquiry in the study of interactive story map journals. Propen's concept presents a new understanding of how researchers in disease and public health surveillance can analyze the effectiveness of text and new media technology in relationship to space, place, and geospatial mapping. More specifically, Propen's concept situates the visual-material as the applied use of text with visual, interactive multimodal components inclusive of images, video, and GPS/GIS mapping technologies.

Methods

This presentation includes a discussion of genre analysis as applied to visual-material components used to study the genre of new media-driven story map journals for the reporting of public and population health resources. Post-Polio Syndrome (PPS) is presented as a case study of how story map journals in population health can be used to create information about global support networks and resources for PPS survivors.

Results

The story map journal is an effective genre of new media, interactive reporting in health and disease surveillance. The analysis alongside Propen's mode of inquiry demonstrates the effectiveness of visual-material components of story maps, and how PPS survivors and medical clinicians can use the story map journal to easily access, visualize, and interact with information about diagnosis and disease management, as well as find connections to local and global support networks.

Conclusions

Story map journals as visual, interactive reporting should be considered when analyzing the accessibility and surveillance of health data for public audiences. The case study of PPS global networks and resources, provides one example of how story map journals can assist public audiences who experience difficulties finding support networks and public health resources

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