11 Years with Wearables: Quantitative Analysis of Social Media, Academia, News Agencies, and Lead User Community from 2009–2020 on Wearable Technologies

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The role of wearable technology in our daily lives is rapidly growing and many users are cumulatively becoming dependent on it. To provide insight into the future of wearable technologies and various community attitudes towards them, we implemented an in-depth quantitative investigation of opinions from academic texts (DBLP and PubMed), social media (Twitter), news media (Google News and Bing News), and entrepreneurship communities (Kickstarter and Indiegogo) over a 10-year period. Our results indicate that unlike academia, the news media, entrepreneurship communities, and social media all hold overall positive attitudes towards wearable technologies. Secondly, there are diverse perspectives towards various wearable products across different platforms. Specifically, "XR" technologies received the most attention, while "Exoskeleton" ignited the most heated debates. Thirdly, we discovered that the lifetime of a hyped wearable technology lasts approximately three years. Furthermore, the news media and entrepreneurship community's attitudes towards wearable technologies did not have a strong impact on public opinion. Finally, among all types of wearable technologies, "fashion design" and "healthcare" products were the most enlightening for the market.

CCS Concepts: • **General and reference** → **General conference proceedings**; • **Social and professional topics** → **Industry statistics**.

Additional Key Words and Phrases: wearable technology, market analysis, text mining, sentiment analysis

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