The paper titled "Sensor-based and vision-based human activity recognition: A comprehensive survey" provides a detailed overview of the state-of-the-art research in human activity recognition (HAR) using sensor-based and vision-based approaches. The authors aim to present a comprehensive review of HAR methodologies, analyze the advantages and weaknesses of different methods, and discuss future research directions.

The paper begins by highlighting the importance of HAR technology in various domains such as Internet of Things (IoT), healthcare, surveillance systems, and gesture recognition. It emphasizes the need for a comprehensive review that covers major subjects in HAR, as previous studies have focused on specific topics within HAR rather than the overall subject.

The authors classify HAR methods into two main groups: sensor-based HAR and vision-based HAR, based on the type of data being processed. They further divide each group into subgroups that perform different procedures, including data collection, pre-processing methods, feature engineering, and the training process. This categorization allows for a comprehensive analysis of the methodologies employed in HAR.

Furthermore, the paper discusses the utilization of deep learning in HAR, which has gained significant interest in recent years due to its exceptional performance in various research areas. The authors explore the advantages and limitations of traditional machine learning algorithms compared to deep learning approaches, highlighting the efficiency and automatic feature extraction capabilities of deep learning models.

In terms of positive points, the paper provides a comprehensive and organized review of sensor-based and vision-based HAR methodologies. It covers a wide range of topics, including data processing, feature engineering, machine learning techniques, and challenges in HAR. The inclusion of deep learning and its application in HAR is a notable aspect of the paper.

However, it's important to note that the paper is a survey and review article, and does not present new methodologies or experimental results. While it provides a valuable summary of existing methodologies, it may not offer novel insights or breakthrough approaches in HAR.

Regarding future works, the authors discuss various challenges in HAR and suggest directions for future research. These challenges include the need for standardized procedures to associate collected data with specific actions, dealing with the massive volume of collected data, and improving incremental learning and unsupervised learning in HAR. The paper encourages further exploration of deep learning techniques and their application in HAR, as well as addressing real-time feedback and monitoring in specific domains such as healthcare and surveillance systems.

In conclusion, the paper serves as a comprehensive survey of sensor-based and vision-based human activity recognition methodologies. It provides a structured overview of existing approaches, discusses their strengths and weaknesses, and offers suggestions for future research directions in the field of HAR.