# A Visual Survey of In-Situ Running Analytics

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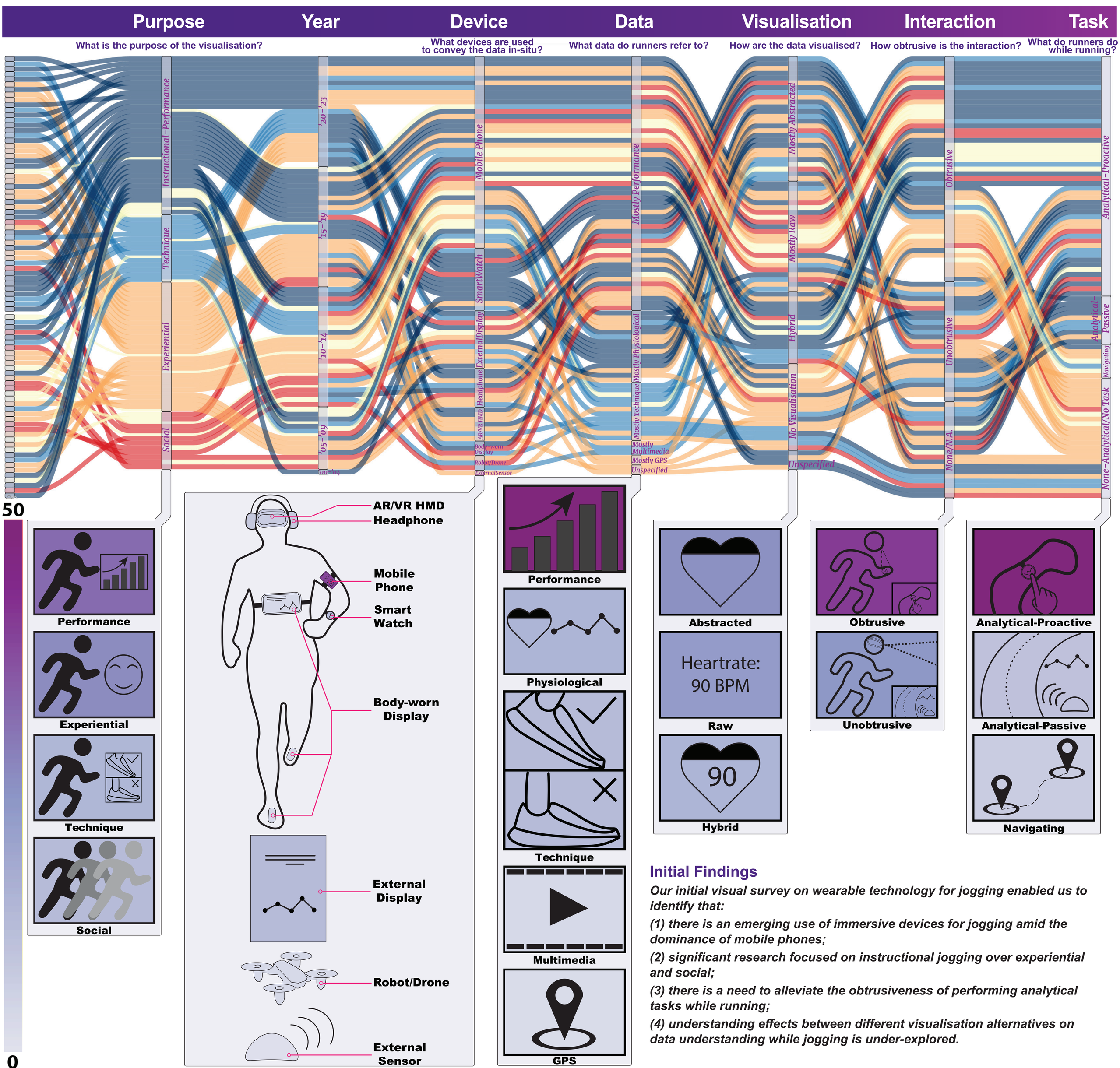
## Introduction

***There is a growing interest in the VIS and HCI community to use those devices to support visualisation and analytics while the user is in movement, or practising physical activity. However, the design space for data visualisation and understanding while running or exerting, to date, is largely under-explored. The purpose of this preliminary research work is to collect and organise pertinent HCI and Visualisation designs and studies, organise and analyse them with a VIS-and-HCI-centric approach in order to (1) learn about past research approaches to present and interact with data while running and (2) inform the design of future immersive running visualisation interfaces to support in-situ running analytics with emerging wearable immersive technology. We analysed 86 papers from 54 HCI and Visualisation venues and identified six categories that describe current running analytics visualisations. Below, we visualise our initial findings and demonstrate gaps and challenges in developing running data visualisations.***




## Initial Findings

***Our initial visual survey on wearable technology for jogging enabled us to identify that:***

***(1) there is an emerging use of immersive devices for jogging amid the dominance of mobile phones;***

***(2) significant research focused on instructional jogging over experiential and social;***

***(3) there is a need to alleviate the obtrusiveness of performing analytical tasks while running;***

***(4) understanding effects between different visualisation alternatives on data understanding while jogging is under-explored.***

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