

IEA VE NEWS

IEA Visual Ergonomics Technical Committee Newsletter

April 2021

From the Chair

Is automation a threat for ergonomists? Robots take over work, even cognitive work. Considering the many automation failures like crashes in automated cars and airplanes, the take-over has not yet come. Robots require supervision, just in case they fail, and the effort for supervising an automate could be even higher than doing the work of the automate oneself, in particular because we don't know how the automat reacts in case of a rare failure.

From that point of view, ergonomists will not become jobless for some time to come.

Cyclic societal demands could also keep ergonomists involved for some time. An example for such cyclic demands are the needs to adapt products to the so called Zeitgeist (spirit of the age). Factors like affection, feelings, and emotions also vary with the Zeitgeist and as an important part of Ergonomics, Kansei Engineering has successfully demonstrated the needs and benefits in integrating this factors in the development of products.

We should be wise and start thinking now about perspectives of ergonomics in a remote future, before being forced to do so, before artificial intelligence, automation, and robots are able to pick up the Zeitgeist and include it in product development. So what should we look for in exploring future fields of Ergonomics?

An answer came up in my mind while discussing with a philosopher at my university. We should think about the meaning of life and the necessary conditions to fulfill the meaning of life. One important condition is to have the freedom to do what you want. Good health (good in terms as perceived by the individual) is a precondition for such a freedom. Unexpected desires may arise when one has the freedom to do what she / he wants. In a conference on Intelligent Transportation Systems I learned about such an unexpected desire: the freedom to drive a manual car. This brings us back to "old" ergonomics but in a new context.

The need for ergonomics will persist in the future!



I wish you a good health.

Marino Menozzi

IEA VE TC Chair

An extended version of this "From the Chair" was held as keynote speech at the conference of the Ambient Intelligence Association of Taiwan in Penghu, Taiwan, 20th March 2021.

In the public eye...

Journal articles

Falkenberg HK, Johansen TR, Schiøtz Thorud HM (2020) Headache, eyestrain, and musculoskeletal symptoms in relation to smartphone and tablet use in healthy adolescents. SJOVS 13(2)

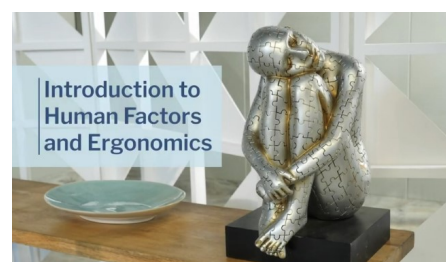
<https://www.sjovs.org/index.php/SJOVS/article/view/122/136>

Schiøtz Thorud HM, Aurjord R, Falkenberg HK (2021) Headache and musculoskeletal pain in school children are associated with uncorrected vision problems and need for glasses: a case-control study. Scientific Reports 11: 2093. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7822909/>

Online course

Introduction to Human Factors and Ergonomics, is a new online course developed by Dr Vivek Kant (IIT Bombay) and Dr Sanjram P Khanganba (IIT Indore). For more information see:

https://onlinecourses.swayam2.ac.in/aic20_ed03/preview



Conference proceedings

IndiaHCI 2020 was a virtual conference with the theme “Emerging Trends in Technology Design” held on 6-8 November 2020. It was organised by Dr Sanjram P Khanganba (IIT Indore) and Dr Abhishek Shirvastava (IIT Guwahati). The conference proceedings is available from <https://dl.acm.org/doi/proceedings/10.1145/3429290>

Blogs

Peter Howarth published a blog for the North East Byelines in the UK, providing a visual ergonomics perspective about road signs and argues for better ways to communicate road warnings to drivers.

You can read it here:

Howarth P (2020) Howway, Give Way! *North East Byelines*

<https://northeastbylines.co.uk/howway-give-way/>



(Photo by Brett Jordan on Unsplash)

Jennifer Long continues to publish a regular blog for the WORK journal. Recently published topics include overcoming hand sanitiser (eye) hazards for children, conquering light pollution, and simulating vision impairment. You can read the blogs at: <http://workjournal.org/visionworkplay>

Radio Interview

Mark Rosenfield gave a radio interview in February 2021 to the US National Public Radio on blue blocking filters for Digital Eye Strain. You can listen to it here:

<https://www.npr.org/2021/02/21/969886124/do-blue-light-blocking-glasses-really-work>

IEA2021 is in June 2021

Don't miss the opportunity to participate in the IEA2021 triennial congress which will be a **VIRTUAL** conference.



This means you can attend the conference from the comfort of your own home—in your pyjamas if you want!

There will be several visual ergonomics tracks, including one in conjunction with the Ergonomics and Design for All TC, and a visual ergonomics lighting workshop. **Registration is available at <https://iea2021.org/>**

Research Collaboration Opportunity

VERAM (Visual Ergonomics Risk Assessment Method) is a risk assessment method developed in Sweden. A screening version of this method is about to be developed, named VERAMlight.

The research team are looking for collaborators around the world to develop this method into other languages. The method consists of both subjective questionnaires, objective measurements of illuminance and luminance, as well as objective risk assessments in the visual environment (red= high risk; yellow = risk; green = no risk) for some factors in the visual environment, such as glare, daylight, illuminance levels, body posture, work task visibility, computer work, visual angle, etc. One of the exciting findings is that when reporting a high amount of eyestrain about 95 % of the participants in the study reported neck pain. There are also risks such as too low illuminance levels, glare etc. that are correlating with subjective strain such as eyestrain and headache.

We have educated personnel in the Occupational Health Services in using this method and they find the method and the education a game changer when evaluating the visual environment and giving recommendations to improving the visual aspects. If you are interested in this method or want to participate in developing the method into other languages, helping to find international funding or collaboration please contact Associate Professor Hillevi Hemphälä at Lund University in Sweden at hillevi.hemphala@design.lth.se.

Did you know...

- Prevent Blindness declared March as Workplace Eye Wellness Month. Prevent Blindness is raising awareness of digital eye strain and providing tips on ways to decrease the effects of increased screen time, particularly during the ongoing COVID-19 pandemic. They have also recently launched a Screen Time-Out awareness campaign to educate individuals on the effects of increased screen. <https://preventblindness.org/march-is-workplace-eye-wellness-month/>
- International Day of Light is 16 May 2021. <https://en.unesco.org/commemorations/dayoflight>

NEXT NEWSLETTER DEADLINE: 30th July 2021

Please send any visual ergonomics news or announcements to Jennifer Long at jlong@visualergonomics.com.au