Faculty of Design

2021

MyWellnessCheck: Designing a student and staff wellbeing feedback loop to inform university policy and governance

Lomas, James Derek and van der Maden, Willem

My Wellness Check

Designing a Student and Staff Wellbeing Feedback Loop to Inform University Policy Governance

Friday, 5 November, RSD 10 Symposium

Derek Lomas, PhD

Assistant Professor
Human-centered Design
j.d.lomas@tudelft.nl

Willem van der Maden, MSc

Ph.D. Designing AI for Wellbeing
Human-centered Design
w.l.a.vandermaden@tudelft.nl

My Wellness Check

TU Delft

Telenor HU 12:43 62%

unsplash.com

48
Photos

363
Liked

5
Collections

Views

3,130,306

+2,663,814 since last month

Downloads

14,859

+12,512 since last month

Student Wellbeing

Harris, S. (2011). *The Moral Landscape: How Science Can Determine Human Values.* Simon and Schuster.
Hawthorne, B., Vella-Brodrick, D., & Hattie, J. (2019). *Well-Being as a Cognitive Load Reducing Agent: A Review of the Literature*. In Frontiers in Education (Vol. 4, p. 121).

Importance of Wellbeing

1. **Wellbeing is an <u>input</u> to education**
   "Hard to Learn Well When You Don't Feel Well"

2. **Wellbeing as an <u>objective</u> for education**
   Education that enhances student wellbeing is intrinsically higher quality. Affective Learning?

3. **COVID disrupted wellbeing everywhere**

Urgency

Abel Brodeur, Andrew E Clark, Sarah Fleche, and Nattavudh Powdthavee. 2021. *COVID-19, lockdowns and well-being: Evidence from Google Trends.* Journal of public economics 193 (2021), 104346.

Tera Allas, David Chinn, Erik Sjatil Pal, and Whitney Zimmerman. 2020. *Well-being in Europe:* Addressing the high cost of COVID-19 on life satisfaction.

What is the role of wellbeing in systems design?

Structure

1. Cybernetics and systems design

2. Cybernetics and wellbeing assessment

3. Designing wellbeing feedback loops at TU Delft: what worked well?

4. The future of designing systems for wellbeing

"Design and cybernetics are really the same thing"

Glanville, Ranulph (2014) How design and cybernetics reflect each other. In: Proceedings of RSD3, Third Symposium of Relating Systems Thinking to Design, 15-17 Oct 2014, Oslo, Norway. Available at http://openresearch.ocadu.ca/id/eprint/2053/
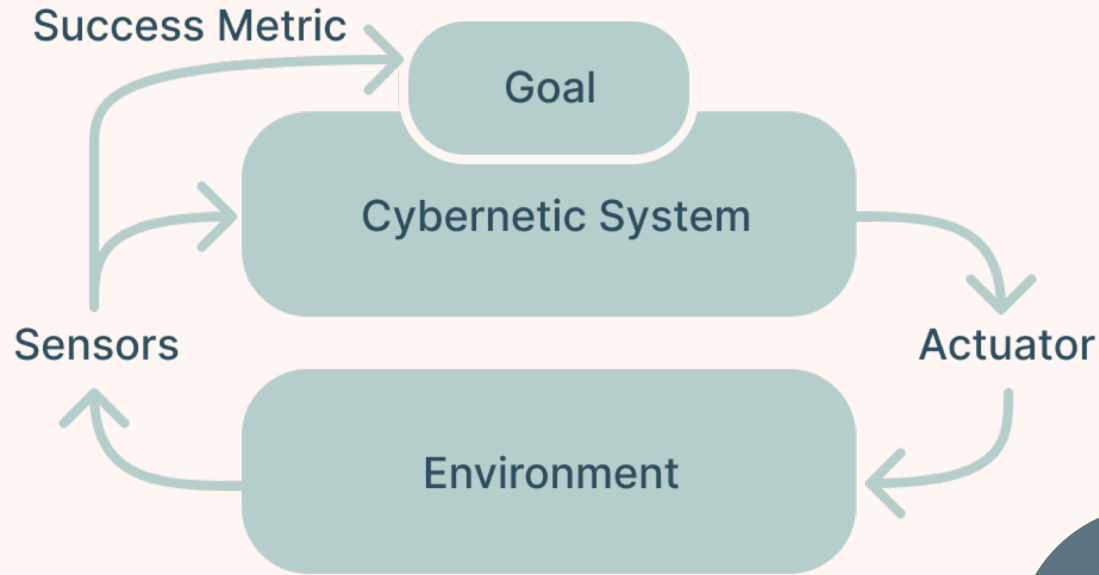
Cybernetics & Design

- Based on error
  - "The question is not to eradicate error, but how do we manage error"

- Responsive
  - "I find I am no longer pointing where I thought I would be pointing [...] so I have to adjust "
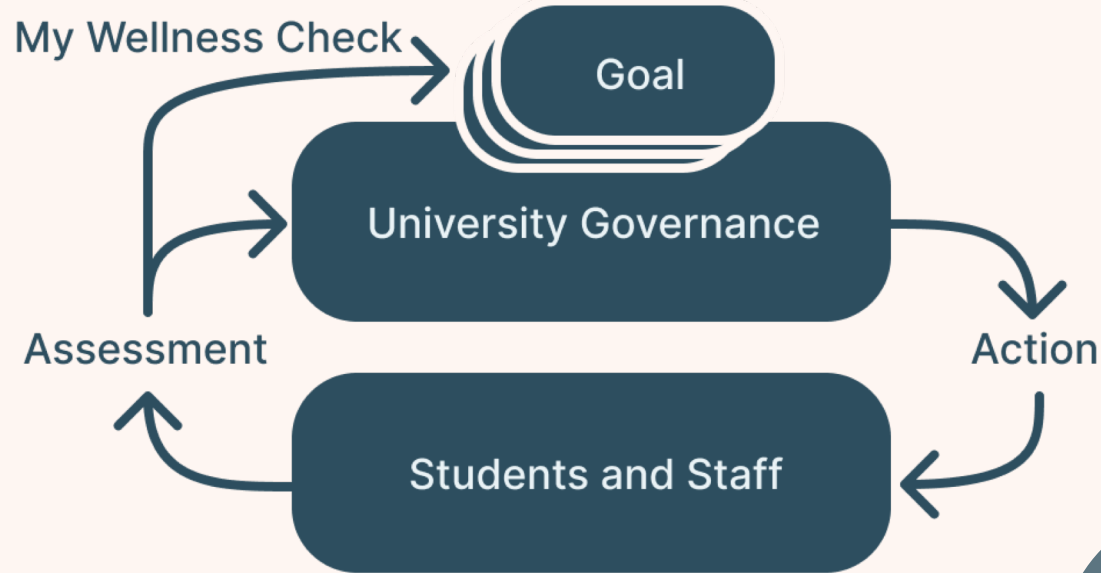
Cybernetic Systems & Assessment

Assess Situation

Do Something About it

Cybernetic Systems & Assessment
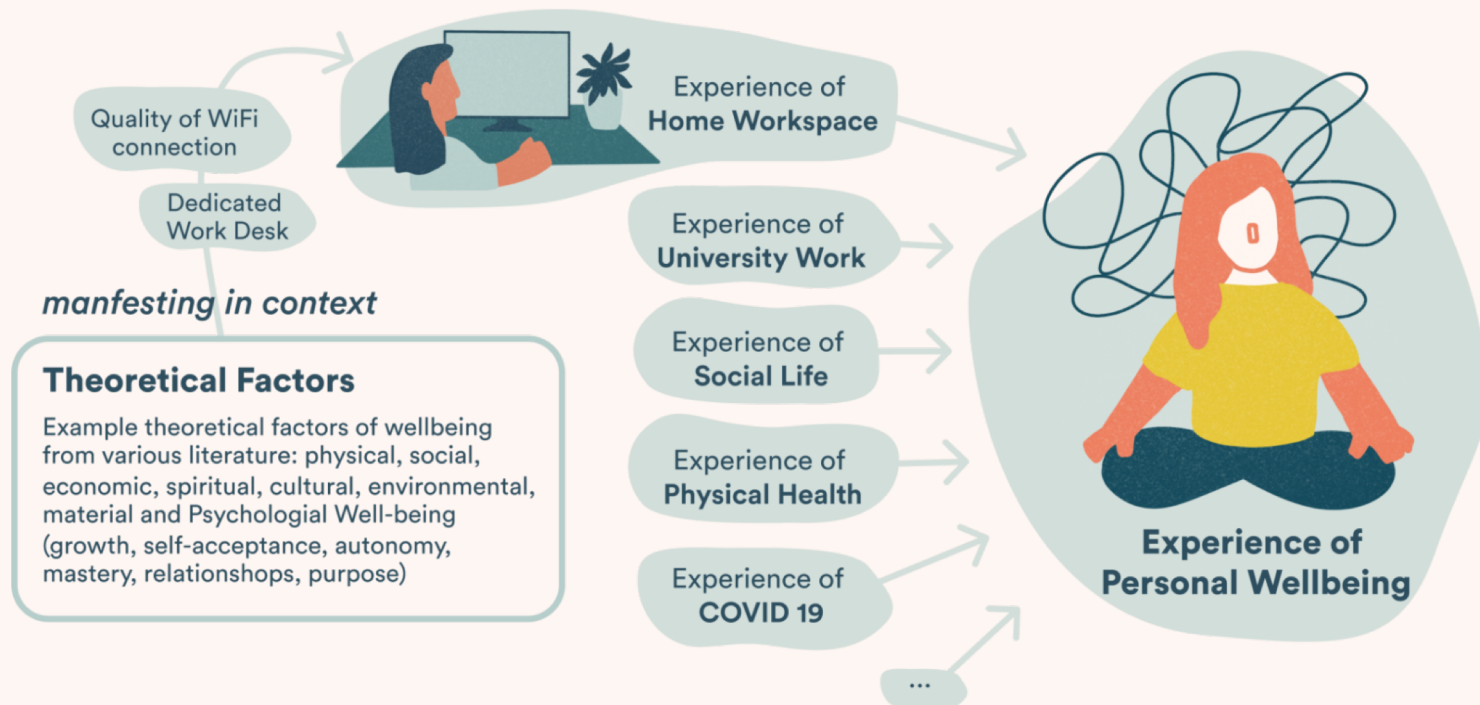
Cybernetic Loop at TU Delft

Assessment philosophy

Human-Centered Participatory Design

- Involve students
  - what are their needs and meaningful questions to ask
  - testing prototypes in controlled experiment

- Iteration of survey
  - improve experience (UI, distribution, progress)
  - producing predictive meaningful data

My Wellness Check

1   17   26

Health & Wellbeing

Taking all things together, **how satisfied or dissatisfied are you with your life as a whole these days?**

Very dissatisfied   Very satisfied

0 1 2 3 4 5 6 7 8 9 10

Optional: elaborate on your rating here

Previous   Next

◁ Docs ✈ 🛜 ⚡   12:36   🔒 ⚹ 78 % ▮

🔒 tudelft-student.mywellnesscheck.org

Social Life

Select all the statements that apply to you

☐ I feel part of a community at TU Delft

☐ I'm part of a student association

☐ I often feel lonely

☐ I often feel disconnected from my family

☐ It often feels like no one at TU Delft cares about me

☐ I feel like I belong at TU Delft

☐ I often feel like I don't have anyone to talk to

☐ I can be myself around my fellow students

☐ I feel that my fellow students care about me and each other

---

✈ 🛜 ⚹   12:37   🔒 ⚹ 77 % ▮

🔒 tudelft-student.mywellnesscheck.org ⬆

1   23

My Wellness Check

Your Ideas

You have come to the last question. Do you have **any ideas** about how we can improve student wellbeing?

Enter your text here

Previous   Submit

Seven iterations, total $n = 18{,}476$

Iteration	Date	n	completion rate
Staff 1	Jun. 2020	2776	85% (2328)
Student 1	Jun. 2020	3150	81% (2604)
Student 2	Nov. 2020	3409	80% (2841)
Staff 2	Dec. 2020	1826	89% (1622)
Student 3	Mar. 2021	2877	77% (2221)
Staff 3	Jun. 2021	2376	84% (2006)
Student 4	Jun. 2021	2062	80% (1719)

Scaled items (student)

		June 2020	October 2020	March 2021	June 2021
	n	2604	2841	2221	1719
Life Satisfaction	M (SD)	6.4 (1.9)	6.0 (1.9)	5.3 (2.0)	5.9 (2.1)
Mood	M (SD)	6.3 (1.9)	6.0 (1.7)	5,5 (1.9)	5.9 (2.0)
Physical Health	M (SD)	6.9 (1.8)	7.1 (1.6)	6.3 (1.9)	6.5 (1.9)
Studying At Home	M (SD)	5.5 (2.2)	5.7 (2.1)	5.3 (2.4)	5.4 (2.5)

Checkbox items (student)

		Percentage agreeing			
		June 2020	October 2020	March 2021	June 2021
Belongingness	I feel part of a community at *anonymized*	44	28	20	24
	I often feel lonely	31	40	42	36
	I feel like I belong at *anonymized*	57	41	41	38
	It often feels like no one at *anonymized* cares about me	21	21	25	24
Overall Wellbeing	Overall, I felt good about my exercise levels	45	44	34	44
	Overall, I felt good about my sleep quality	52	51	48	46
	Overall, I felt good about my diet	61	62	54	53
	Overall, I often felt down	46	46	59	44
	I often worry too much	58	65	58	58
Studies	I feel confident about graduating on time	50	45	42	42
	I am generally optimistic about the future	61	56	51	53
	I am happy with how I am performing in my studies	63	50	48	50
	I am satisfied with my study/life balance	39	31	19	25

What worked well?

Design workshops

- **Involving the institution students, staff, administration, counselors**
  - collaborative analysis of data **to inform the institution**
  - finding ideas on how **to support people's wellbeing**
  - to "muddle through"

StudioLab Wellness Pub

We had lots of fun at the workshop on Friday 24th, including chit-chat, beers and dialogues about wellbeing need and ideas to improve the situation.

12 participants

4 table topics

20 mins per topic

Prevalent emerging needs and ideas

Community talks
StudioLabbers or external people giving inspirational talks or presentations regularly (i.e., lunch lectures)

Animals at work
Dogs in the office, llamas and alpacas in videocalls... They can help us deal with stress

Informal conversations
Creating space for casual sharing of personal matters and interests (e.g., breakfast, Friday drinks, tea time)

Fun and celebration
Meeting outside work and celebrate our achievements having fun together (e.g., one shot for each achievement)

Alternative spaces
(Small) areas for relax (e.g., sleep, yoga), collaboration, sport & games, plants, inspiration and concentration

Integration of hybrid work
Videocalls keep us at home: single booths with extra monitors can allow us to have them in the office

Recognition and information
Conversations with supervisors about long term vision; personal and professional recognition also from peers

Sharing food
More facilities (e.g., benches, lunch areas) and occasions to share food (e.g., organised community lunch)

Schedule and mood sharing
How can we (remotely) communicate our daily mood and our schedule for in- and out-of-office days?

Creativity and inspiration
Enough with inspiration coming from Google, more time to be creative and get ideas from real world and people

Questionnaire Experience

	MWC	WEMWBS*	CSSWQ*
Correlation with Life Satisfaction expressed by R^2	0.53	0.51	0.42
How **satisfied** were you with this questionnaire? (0-10)	7.0	6.2	5.9
This questionnaire was of **high quality** (0-5)	3.8	3.3	3.1
Completing this questionnaire was of some **value to me** (0-5)	3.3	2.9	2.6
Completing this questionnaire was **engaging** for me (0-5)	3.2	2.8	2.7
Completing this questionnaire was **exhausting** (0-5)	2.0	1.8	1.9
Completing this questionnaire was **worthwhile** (0-5)	3.5	3.2	3.0
Completing this questionnaire was **fun** (0-5)	2.9	2.7	2.6

* WEMWBS: Warwick-Edinburgh Mental Well-being Scale; CSSWQ: College Student Subjective Wellbeing Questionnaire

What are the challenges?

AI for Wellbeing

Conclusion

Using **cybernetic feedback loops** to actively integrate wellbeing into existing systems is an iterative process that can incorporate different **human-centered design methods** to better understand the assessment needs of that system over time and allows for **informed "muddling through"**

Future work

- How might the **impact be measured**?

- **What is the relation** between wellbeing integration and its system's design?

- How might **self-report be used to _steer_** complex systems?

Thank you

Contact

Willem van der Maden, MSc

E: w.l.a.vandermaden@tudelft.nl

W: www.mywellnesscheck.org

L: in/wlavandermaden/