Positive Computing

-

Technology for Wellbeing and Human Potential
(Folien teilweise von R. Calvo)

Human Centered Multimedia

Institute of Computer Science

Augsburg University

Universitätsstr. 6a

86159 Augsburg, Germany

- Technologischer Fortschritt (z.B. IoT, Ubi. Comp.) hat die Fähigkeit das Wohlbefinden der Nutzer zu beeinflussen / steigern
- Es passiert bereits:
  - Soziale Netzwerke (z.B. Facebook):
    - Beeinträchtigungen der subjektiven Wahrnehmung des eigenen Wohlbefindens bei Jugendlichen [Kross 2013]
    - Emotionale „Ansteckung" durch Beiträge [Kramer 2014, Lorenzo 2014]
    - Beiträge, Kommentare, Nachrichten etc. stärken die Verbindung zwischen Nutzern (speziell bei Personen, die seltener in Kontakt stehen) [Burke 2014]
  - Smartphones
    - Steigern die Autonomie
    - Gefahr, dass Arbeitszeit und Freizeit nicht mehr klar genug getrennt sind, beeinträchtigt Erholungsphasen und Wohlbefinden [Derks 2012/2014]

- Produktivität?
- Genauigkeit?
- Effizienz?
- Performanz?
- Transparenz?
- Kontrollierbarkeit?
- Zufriedenheit?
- Spaß?

Annahme:

Durch Steigerung dieser Kriterien wird auch unser psychologisches Wohlbefinden gesteigert
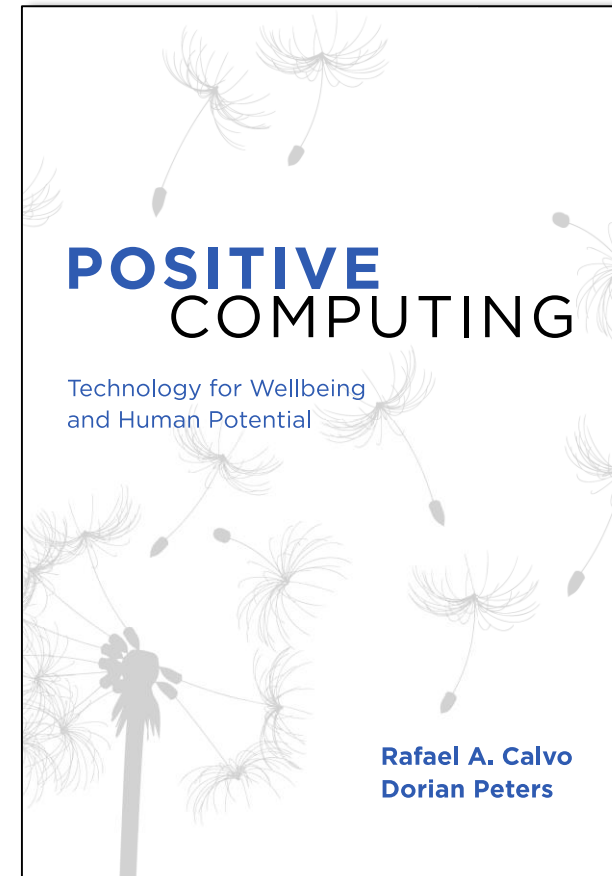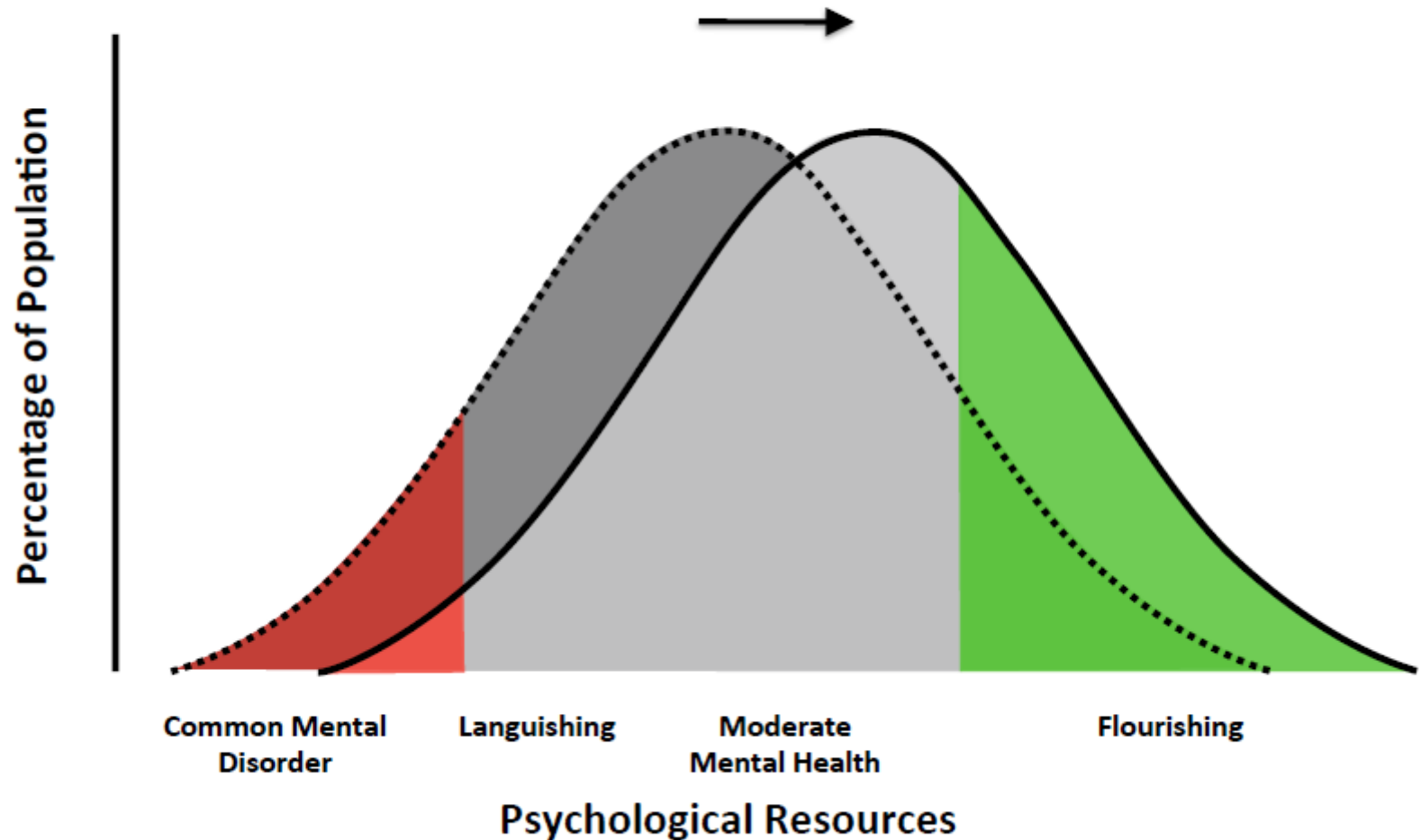

https://www.quora.com/Whats-the-best-way-to-increase-productivity

We design for proxies

Why design for proxies when we can design for the real thing?

Folie von R. Calvo

"Technology should be designed to support psychological wellbeing."

- Wohlbefinden setzt sich aus vielen Facetten zusammen

- HCI beyond Human-Centered Design

➢ Positive Computing:
„The research and development of technology to support wellbeing and human potential"

POSITIVE COMPUTING

Technology for Wellbeing and Human Potential

Rafael A. Calvo
Dorian Peters

Moving the population towards flourishing

Percentage of Population

Common Mental Disorder | Languishing | Moderate Mental Health | Flourishing

Psychological Resources

Source: Felicia Huppert, Cambridge Wellbeing Institute

Folie von R. Calvo

Arten von Positive Computing Technologien		Beispiele
A – kein Positive Computing	Menschliches Wohlbefinden und Potential wurden beim Design nicht berücksichtigt	
B – Präventive Integration	Hindernisse und Beeinträchtigungen im Bezug auf Wohlbefinden werden als Fehler behandelt	• Maßnahmen um Trolling und Cyber-Mobbing zu verhindern
C – Aktive Integration	Design das aktiv menschliches Wohl-befinden und Potential fördert, obwohl das Hauptziel der Technologie ein anderes ist.	• Überarbeitung der Word-Oberfläche, um flüssiges Arbeiten zu ermöglichen • Überarbeitung von Social Media, um soziale Intelligenz zu fördern
D – Gezielte Integration	Technologie, die hauptsächlich dem Zweck gewidmet ist in irgendeiner Form menschliches Wohlbefinden und Potential zu fördern.	• Maßnahmen der positiven Psychologie • Spiele, die z.B. Empathie fördern sollen

Theorien und ihre Komponenten psychologischen Wohlbefindens

- **Selbstbestimmungstheorie** (Deci & Ryan 1985):
  - Autonomie
  - Kompetenz
  - Soziale Eingebundenheit (Connectedness)

- **Positive Psychologie** (Seligman 2003):
  - P wie Positive Gefühle
  - E wie Engagement
  - R wie positive Beziehungen (Relationships)
  - M wie Sinn (Meaning)
  - A wie Zielerreichung (Accomplishment)
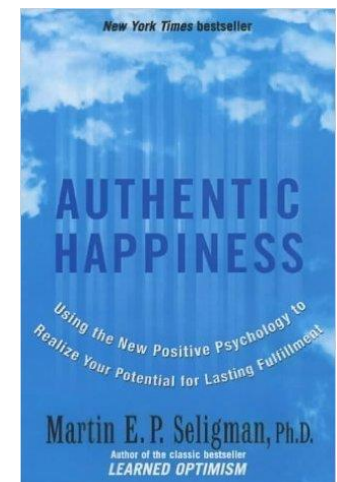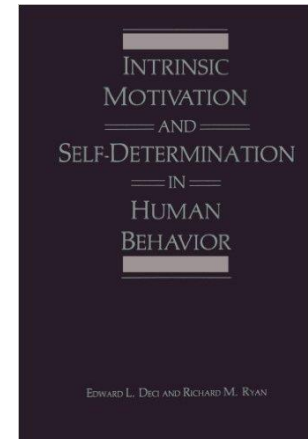
- **Ryff Dimensionen:**
  - Selbstakzeptanz (Self acceptance)
  - Positive Beziehungen zu anderen (Positive Relations with Others)
  - Autonomie
  - Beherrschung der Umgebung (Environmental Mastery)
  - Lebensziele (Purpose in Life)
  - Persönliches Wachstum (Personal Growth)

The Structure of Psychological Well-Being Revisited

Carol D. Ryff and Corey Lee M. Keyes
University of Wisconsin—Madison
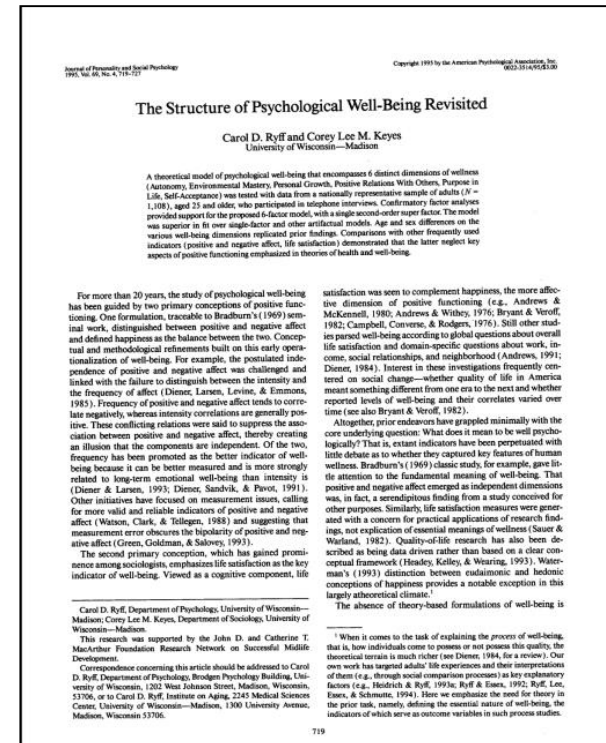
- **Compassion-Focused Therapy:**

"One of its key concerns is to use compassionate mind training to help people develop and work with experiences of inner warmth, safeness and soothing, via compassion and self-compassion."

- **Zehn Faktoren des Wohlbefindens von Huppert:**
  - Positive Emotionen
  - Engagement
  - Beziehungen
  - Lebenssinn
  - Kompetenz
  - Emotionale Stabilität
  - Optimismus
  - Belastbarkeit (resilience)
  - Selbstachtung (self esteem)
  - Vitalität

Soc Indic Res (2013) 110:837–861
DOI 10.1007/s11205-011-9966-7

Flourishing Across Europe: Application of a New Conceptual Framework for Defining Well-Being

Felicia A. Huppert · Timothy T. C. So

Accepted: 20 November 2011 / Published online: 15 December 2011
© The Author(s) 2011. This article is published with open access at Springerlink.com

Abstract Governments around the world are recognising the importance of measuring subjective well-being as an indicator of progress. But how should well-being be measured? A conceptual framework is offered which equates high well-being with positive mental health. Well-being is seen as lying at the opposite end of a spectrum to the common mental disorders (depression, anxiety). By examining internationally agreed criteria for depression and anxiety (DSM and ICD classifications), and defining the opposite of each symptom, we identify ten features of positive well-being. These combine feeling and functioning, i.e. hedonic and eudaimonic aspects of well-being: competence, emotional stability, engagement, meaning, optimism, positive emotion, positive relationships, resilience, self esteem, and vitality. An operational definition of flourishing is developed, based on psychometric analysis of indicators of these ten features, using data from a representative sample of 43,000 Europeans. Application of this definition to respondents from the 23 countries which participated in the European Social Survey (Round 3) reveals a four-fold difference in flourishing rate, from 41% in Denmark to less than 10% in Slovakia, Russia and Portugal. There are also striking differences in country profiles across the 10 features. These profiles offer fresh insight into cultural differences in well-being, and indicate which features may provide the most promising targets for policies to improve well-being. Comparison with a life satisfaction measure shows that valuable information would be lost if well-being was measured by life satisfaction. Taken together, our findings reinforce the need to measure subjective well-being as a multi-dimensional construct in future surveys.

Keywords Well-being · Flourishing · Population sample · Europe · Measurement · Survey

12

Faktoren

psychologischen Wohlbefindens

AUTONOMY

Feeling that one has the power to influence
the outcome of an experience;

Feeling that an experience is self-endorsed and congruent with own values and interests

Literature & Theories:

- Self-Determination Theory (Ryan & Deci)
- Ryff's Psychological Well-Being Scales (Ryff, Keyes)

Strategies:

- Intrinsic and extrinsic motivation
- Support decision-making process
- Provide easy to use services

Methods & Measures:

- Index of Autonomous Functioning (IAF)
- Ryff's Psychological Well-Being Scales (PWB)

COMPETENCE

Feeling that one has sufficient ability or expertise relevant to an experience

Literature & Theories:

- Self-Determination Theory (Ryan & Deci)
- 10 Features of Positive Wellbeing (Huppert, So)

Strategies:

- Adjustment of difficulty levels (e.g. Games, Usability)
- Set realistic goals
- Increase of knowledge and skills
- Competitions

Methods & Measures:

- European Social Survey (ESS)

ENGAGEMENT

Taking part in activities that absorb one completely;
State of concentrated attention with
loss of self-consciousness

Literature & Theories:

- Self-Determination Theory (Ryan & Deci)
- Flow Theory (Csikszentmihalyi)

Strategies:

- Intrinsic and extrinsic rewards
- Improving concentration
- Reducing distractions

Methods & Measures:

- The Motivation and Engagement Scale
- Self-Regulation Questionnaires

MOTIVATION

Process that initiates, guides, and maintains goal-oriented behaviors

Literature & Theories:

- Self-Determination Theory (Ryan & Deci)
- Flow Theory (Csikszentmihalyi)

Strategies:

- Intrinsic and extrinsic rewards

Methods & Measures:

- The Motivation and Engagement Scale
- Self-Regulation Questionnaires

MINDFULNESS

Awareness that arises through paying attention, on purpose, in the present moment, non-judgementally; It's about knowing what is on your mind.

Literature & Theories:
- **M**indfulness-**B**ased **S**tress **R**eduction (Kabat-Zinn)
- **M**indfulness-**B**ased **C**ognitive **T**herapy (Segal, Williams & Teasdale)

Strategies:
- Mindfulness meditation
- MBSR strategies
- MBCT strategies

Methods & Measures:
- MAAS
- Freiburg Mindfulness Inventory

POSITIVE EMOTIONS

Emotional response modeled to dictate
a positive affect (in another person);
e.g. Joy, pride, connectedness, awe, and love

Literature & Theories:

- Hedonic Psychology (Kahneman)
- Subjective Wellbeing (Deiner)
- Building & Broadening Effect (Fredrickson)

Strategies:

- Savoring
- Positive ruminating
- Reframing
- Compassion meditation

Methods & Measures:

- PANAS scales
- General wellbeing measures, such as SWB, SWLS and QoL scales

RESILIENCE

Ability to recover readily from illness, depression, adversity, or the like; Ability to become strong, healthy, or successful again after something bad happens

Literature & Theories:

- Psychology of Resilience (Seligman, Keyes)
- Building & Broadening Effect (Fredrickson)

Strategies:

- Positive Psychology Interventions
- SuperBetter

Methods & Measures:

- Resilience Scale

SELF-AWARENESS

Being aware of oneself as an individual entity, personality, or character

Literature & Theories:

- Cognitive Behavioral Theory (Beck)
- Emotional Intelligence (Mayer & Salovey)

Strategies:

- Life summary
- Online CBT study
- Technology-Mediated Reflection

Methods & Measures:

- Emotional Intelligence measures (e.g. MSCEIT)
- Wellbeing measures such as Life Satisfaction

GRATITUDE

Feeling of appreciation or thanks;
The quality or feeling of being grateful or thankful

Literature & Theories:

- Psychology of Gratitude (Emmons, McCullough)

Strategies:

- Gratitude visit
- Gratitude journal
- Gratitude diary

Methods & Measures:

- Gratitude Questionnaire

EMPATHY

Feeling that you understand and share another person's experiences and emotions;
Ability to share someone else's feelings

Literature & Theories:

- Emotional Intelligence (Salovey & Mayer; Goleman)
- Affective and Cognitive Empathy (Gerdes et al; Singer)

Strategies:

- Role-playing
- Perspective-talking
- Emotion recognition training

Methods & Measures:

- Empathy Quotient (EQ)
- Interpersonal Reactivity Index
- Children's Empathic Attitudes Questionnaire

RELATEDNESS

Belongingness and connectedness with others; Good relationships; Secure relational base

Literature & Theories:

- Self-Determination Theory (Ryan, Deci)
- Ryff Scales of Psychological Wellbeing (Ryff, Keyes)

Strategies:

- Enable people to stay in contact with friends and family members
- Foster meaningful and positive relationships

Methods & Measures:

- European Social Survey (ESS)

ALTRUISM

Feelings and behavior that show a desire to help other people and a lack of selfishness;
Principle or practice of unselfish concern for or devotion to the welfare of others

Literature & Theories:
- Empathy-Altruism (Batson)

Strategies:
- Prosocial games
- Role-playing helping behavior

Methods & Measures:
- Self-compassion Scale
- Prosocial Orientation Scale
- Hostile Attribution Bias Questionnaire

COMPASSION

Feeling that arises in witnessing another's suffering that motivates a subsequent desire to help

Literature & Theories:

- Compassion-Focused Therapy (Gilbert)
- Evolutionary analysis of compassion (Goetz, Keltner, Simon-Thomas)

Strategies:

- Compassion Meditation
- Help people to gain a better understanding of issues
- Empower people to have impact on issues

Methods & Measures:

- Self-compassion Scale
- Prosocial Orientation Scale
- Hostile Attribution Bias Questionnaire

MEANING

Find a deep sense of fulfilment by employing our unique strengths for a purpose greater than ourselves

Literature & Theories:

- PERMA (Seligman)
- Ryff Scales of Psychological Wellbeing (Ryff, Keyes)

Strategies:

- Awareness-Meaning-Therapy (AMT)
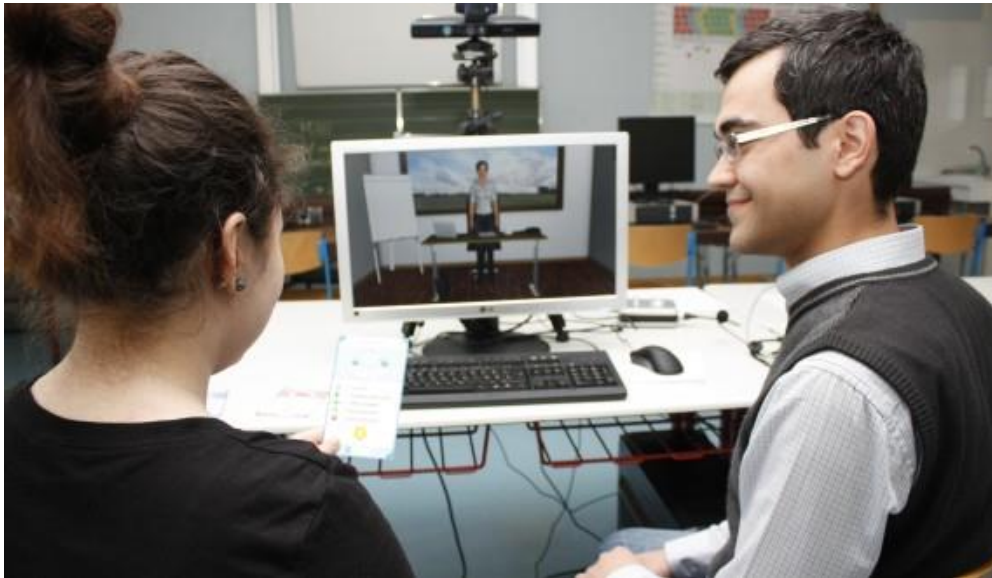- Frame actions in the context of life goals

Methods & Measures:

- Ryff's Psychological Well-Being Scales (PWB)

Beispiele für
Positive Computing

Vorbereitung auf Job Interviews

- Betroffene Faktoren: Kompetenz / Belastbarkeit / Selbstwahrnehmung
- Vorgehen: Simulierte Bewerbungsgespräche mit Feedback
- Maße: Weniger „Fehlverhalten", Reaktionen in Stresssituationen, Abschneiden bei echtem Bewerbungsgespräch

Beispiel: Empathie

eCIRCUS: Reduktion von Mobbing im Klassenzimmer

- Betroffene Faktoren: Empathie / Belastbarkeit
- Vorgehen: Rollenspiel mit virtuellen Charakteren
- Maße: Reaktionen in Fällen von Mobbing (simuliert und real), Fragebögen

1. Technologie verändert uns.

2. Psychologische Theorien liefern psychologische Faktoren, die dafür bekannt sind Wohlbefinden zu fördern.

3. Berücksichtigung der Faktoren beim Design von Technologien kann Wohlbefinden der Nutzer steigern.

4. Positive Computing unterstützt dieses Vorgehen:

   a. Beschreibt multidisziplinäre Arbeiten und theoretische Frameworks auf denen die praktische Umsetzung aufbauen kann.

   b. Fokussierung auf ausgewählte Faktoren unterstützt Designer und Entwickler bei der Umsetzung ihres Systems

   c. Richtet den Fokus aller Technologien auf die Förderung „florierenden Wohlbefindens"

Brainstorming:

- Welchen Faktor bzw. welche Faktoren des Positive Computing könnt ihr mit eurem Anwendungsbeispiel gezielt angehen?

- Wie könnt ihr konkret mit eurer Anwendung den/die auswählten Faktor(en) fördern?

- Wie könntet ihr den erhofften Effekt eurer Anwendung messen?

Abgabe: Concept Map