

# The Measure of Empathy in Design: How Do We Trigger Empathy among Designers and Beyond?

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Empathy supports the **engagement**  
**towards the users** to better understand  
their **experience and perspectives**



cognitive vs. affective

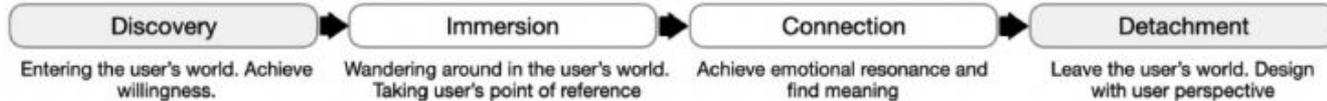
trait of personality vs. state



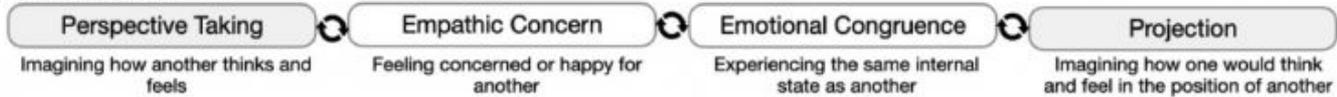
**Empathic design** employs **methods**  
supporting designers to **immerse** themselves  
in the user experience



Kouprie et al. (2009)



Hess and Fila (2016)



Smeenk et al. (2018)

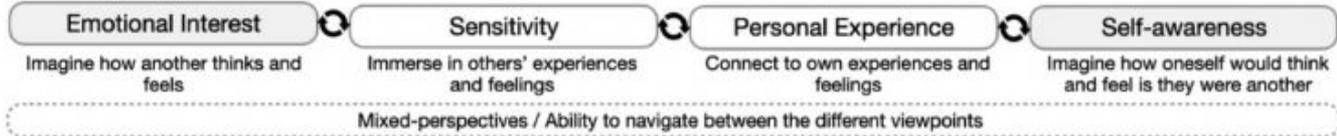
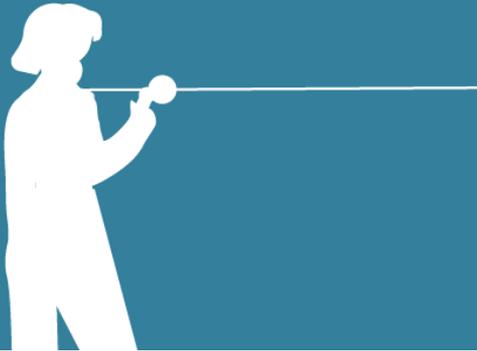


Figure 1: Synthesis of the main frameworks of empathy in design and their overlaps [ 10]

To the best of our knowledge,  
there are no design-specific tools to date  
to (quantitatively) measure empathy  
in service design



How can we know  
what we do not (really) measure?



Would the field benefit from  
specific measurement tools to examine  
whether empathy was effectively  
triggered and to which extent?



How can we judge the effectiveness  
of a design intervention relying on empathy  
among designers and beyond?



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### Staging passengers' journey maps under the form of a physical installation [28]

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By synthesizing and making accessible users' raw data, journey maps support building empathy within an organization [22]. We introduce physical journey maps as physical installations staging user research data and insights through various mediums and sensory modalities to represent the journeys of the users of a service or a product [28]. We designed Xpressia, a physical and interactive journey map, staging the experience of railway passengers. Through this immersive installation, employees interact with various data showcasing passengers' experiences in order to develop their sensitivity towards passengers. A call-to-action invites employees to ideate solutions to improve the service and supports the awareness and co-ownership of their role in the passenger experience.



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### Co-designing the future of a railway service

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Collaboration and direct contact with the users can generate an empathic understanding of users' experiences Sanders and Stappers [44]. We asked railway employees and passengers to ideate on the future experience of passenger information and co-design an information poster. While designing the service with users, employees received direct user experience inputs pertaining to the part of the service experience designed. It facilitated how employees could envision users' understanding and experiences.



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### Love and break-up declarations to the service

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Usually part of a design probe kit [12], the love and break-up letter technique stages a fictional relationship between users and a product to better understand their attachment to technologies or services [13]. It further allows triggering emotional user expression and collecting engaging data. We first asked passengers to make declarations of love or break-up to their railway company. The audio recordings of the declarations will next be anonymized and shared with some employees, who will be invited to interpret what needs the passengers express and to define how their work might impact these passengers' need fulfillment. This empathic method should trigger employees' sensitivity towards users and their self-awareness.

Dear CFL,  
Here we are taking stock of our four-year relationship.  
I must admit that four years ago I often wanted to break up with you. And yes, my journeys between xx\* and xx\* do not contain only good memories. Sometimes you were late. Sometimes a bit too often for my taste. And then unfortunately, you did not go directly from xx\* to xx\*. At least, my move to xx\* made the two of us relive a honeymoon. My daily journeys between xx\* and xx\* are a bliss.  
If ever you have a problem, which can happen, I take the bus. As for my Saturday trips to xx\*, I can't complain either. Delays are rare. I always find a seat. You are relatively proper despite the number of admirers you have every day. And the best, you don't cost me anything for Valentine's Day.  
The only downside between you and me is that it is a little complicated for me to go to xx\* on weekends to see my parents. If you improved this point, I would be very happy. And if you continue like this, who knows, maybe one day we will celebrate our golden wedding anniversary together.  
Keep it up.

\*Anonymized data

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Table 1: Description of our approach and ongoing studies

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# Staging passengers' journey maps under the form of a physical installation

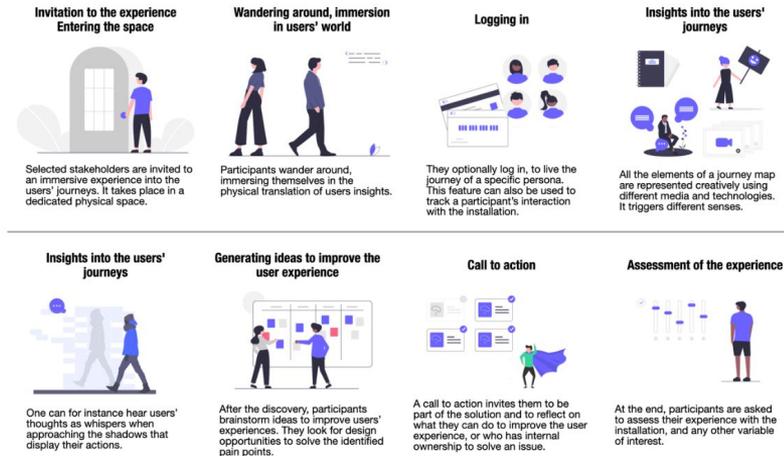


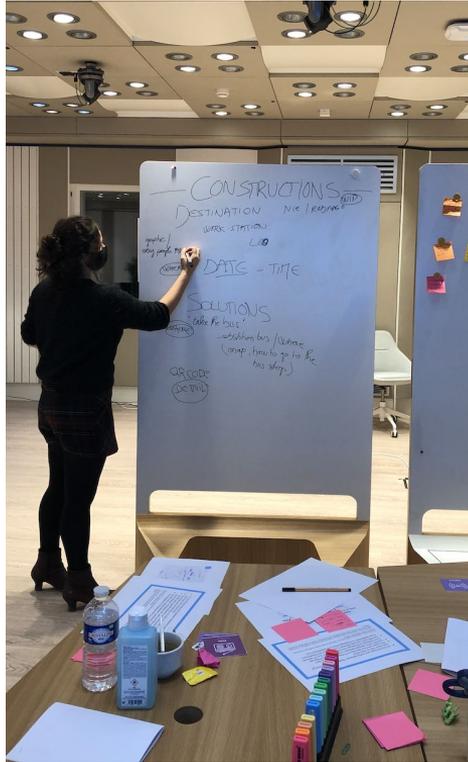
Figure 3: Storyboard of a Physical Experience Map Installation



Figure 4: A participant experiencing the physical experience map prototype

(Lallemand et al. 2022)

# Co-designing the future of a railway service



# Love and break-up declarations to the service

*Dear CFL,*

*Here we are taking stock of our four-year relationship.*

*I must admit that four years ago I often wanted to break up with you. And yes, my journeys between xx\* and xx\* do not contain only good memories. Sometimes you were late.*

*Sometimes a bit too often for my taste. And then unfortunately, you did not go directly from xx\* to xx\*. At least, my move to xx\* made the two of us relive a honeymoon. My daily journeys between xx\* and xx\* are a bliss.*

*If ever you have a problem, which can happen, I take the bus. As for my Saturday trips to xx\*, I can't complain either. Delays are rare. I always find a seat. You are relatively proper despite the number of admirers you have every day. And the best, you don't cost me anything for Valentine's Day.*

*The only downside between you and me is that it is a little complicated for me to go to xx\* on weekends to see my parents. If you improved this point, I would be very happy. And if you continue like this, who knows, maybe one day we will celebrate our golden wedding anniversary together. Keep it up.*

\*Anonymized data

*Dear CFL,*

*This is going to be really hard but I've prepared a letter for you.*

*Um, we need to breakup.*

*Um, we both had good journeys together, but unfortunately, the negative points overweigh the good and, um...*

*I mean, we had great times when it worked. But when not, then it was really, really horrible.*

*Um, you're unreliable. And, um... it just takes too long for you to understand, to think further that, um... you need ways to think different and, um... I just don't get that from you.*

*So, I'm sorry, but I think I'm just going to use the car. So, bye bye.*

(a) establishing a baseline

(b) measuring the impact of deployed design methods

**Table 2: Experimental version of the Empathy in Design Scale**

*Instructions:* The table below includes statements related to your professional context. Please use the 7-points scale\* to indicate the degree to which these statements accurately describe you or not. Respond spontaneously: there are no right or wrong answers, only your perspective matters.

Item code	Item
	<i>Emotional interest/Discovery (EI)</i>
EI1	I am interested to learn about users' experiences and needs
EI2	I imagine how users think, feel or behave in different situations
EI3	I am curious about users' experiences and needs
EI4	I want to learn about users' experiences and opinions about the service
	<i>Sensitivity/Immersion (S)</i>
S1	I am sensitive to the experiences of users
S2	I observe without judging how users experience the service
S3	When thinking about the service, I take the users' point of reference
S4	I immerse myself in the user's world
S5	I go to the field in order to feel in touch with users
S6	I am concerned about the experiences of users
	<i>Personal experience/Connection (PE)</i>
PE1	When thinking about the service, I consider and reflect on my own experiences and feelings
PE2	The experiences and feelings of users resonate with my own
PE3	I understand the users' experiences because I know how it feels
PE4	I compare users' experiences with the ones of people I know
	<i>Self-awareness/Detachment (SA)</i>
SA1	I imagine how I would feel and think if I were a user rather than an employee
SA2	I am aware that my experiences as an employee are different from the ones of users
SA3	I realize that there are similarities and differences between my experiences and the ones of users
SA4	I understand why users perceive things differently than I do as an employee

\* The 7-points of the scale are: 1/ Does not describe me at all 2/ Barely describes me 3/ Somewhat describes me 4/ Neutral 5/ Generally describes me 6/ Mostly describes me 7/ Completely describes me

(Drouet et al. 2022)



# Measuring the Empathy Impact of Design Methods

First measure  
of empathy

(instructions  
received by  
email with the  
scale to fill)

Design  
intervention

(empathic  
method used)

Second  
measure of  
empathy

(fill the scale  
the last 5 min  
of the session)

Third  
measure of  
empathy

(scale sent by  
email, asking  
the participants  
to fill it)



# Triggering Empathy beyond the Design Team

## WHY

- UX maturity relies on the involvement of all relevant stakeholders
- Finding designers' allies in organization with a low UX maturity

## LIMITS

- Reluctant stakeholders
- “Empathy trap”

# Measuring Empathy in Design

## WHY

- Assess empathy levels of different stakeholders
- Measure the effectiveness of empathic design interventions
- KPI to convince decision-taking stakeholders

## LIMITS

- Challenges of a self-reported tool to measure empathy
- Ethical risks
- Limited measure of the empathy impact

A measurement tool would  
facilitate understanding  
the value of empathy  
for breaking silos  
in the organization and  
delivering high-quality services  
and products.

Do you agree?

# Thank you

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Research project in partnership with

