

Doing Work That Matters

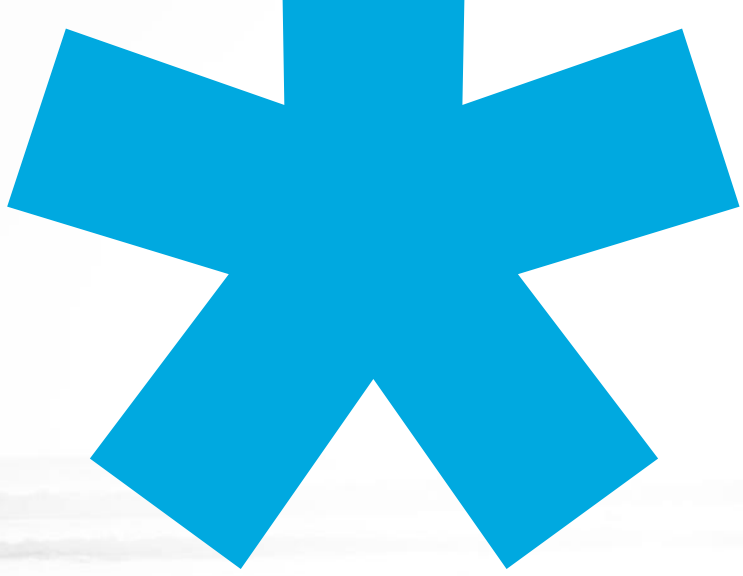
A Look Beyond The Idealistic Notion Of ‘Doing Meaningful Work’

Barb Spanton

@_b_a_r_b_

Director, User Experience
Varian Medical Systems (A Siemens Healthineers Company)

varian
A Siemens Healthineers Company



Vision:
A World Without
Fear of Cancer



Vision:
A World Without
Fear of Cancer

@_b_a_r_b_



Vision:
A World Without
Fear of Cancer

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“I needed a little bit of a reason to go on.”

New team member, 4yrs into her career.

3 obstacles

3 obstacles

3 coping mechanisms

3 obstacles

3 coping mechanisms

1 big pile of hope and determination

1. It's regulated.

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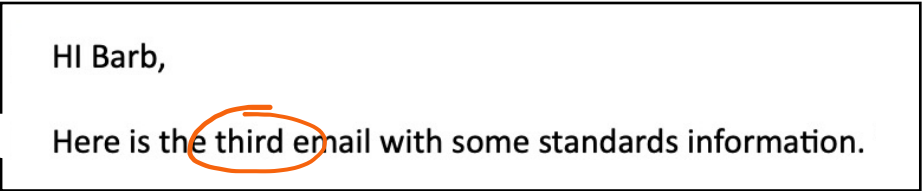
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
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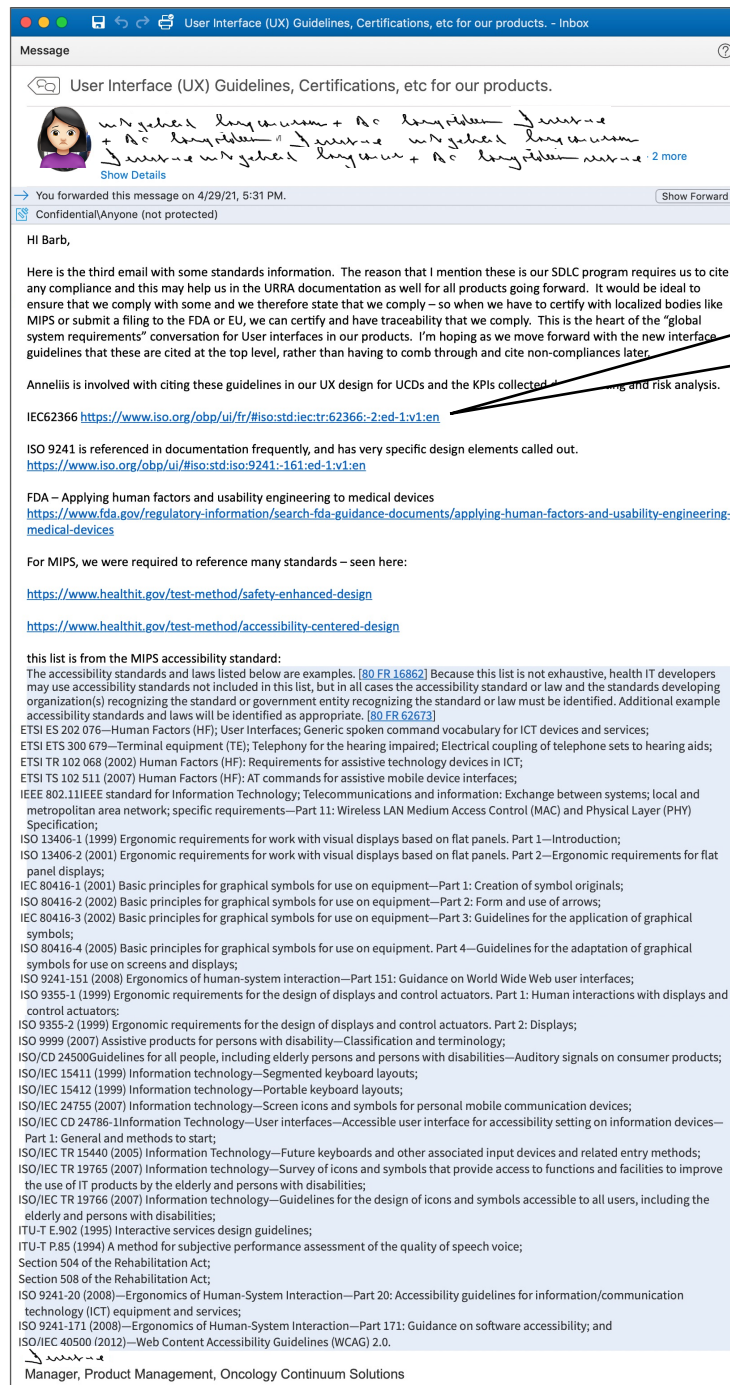
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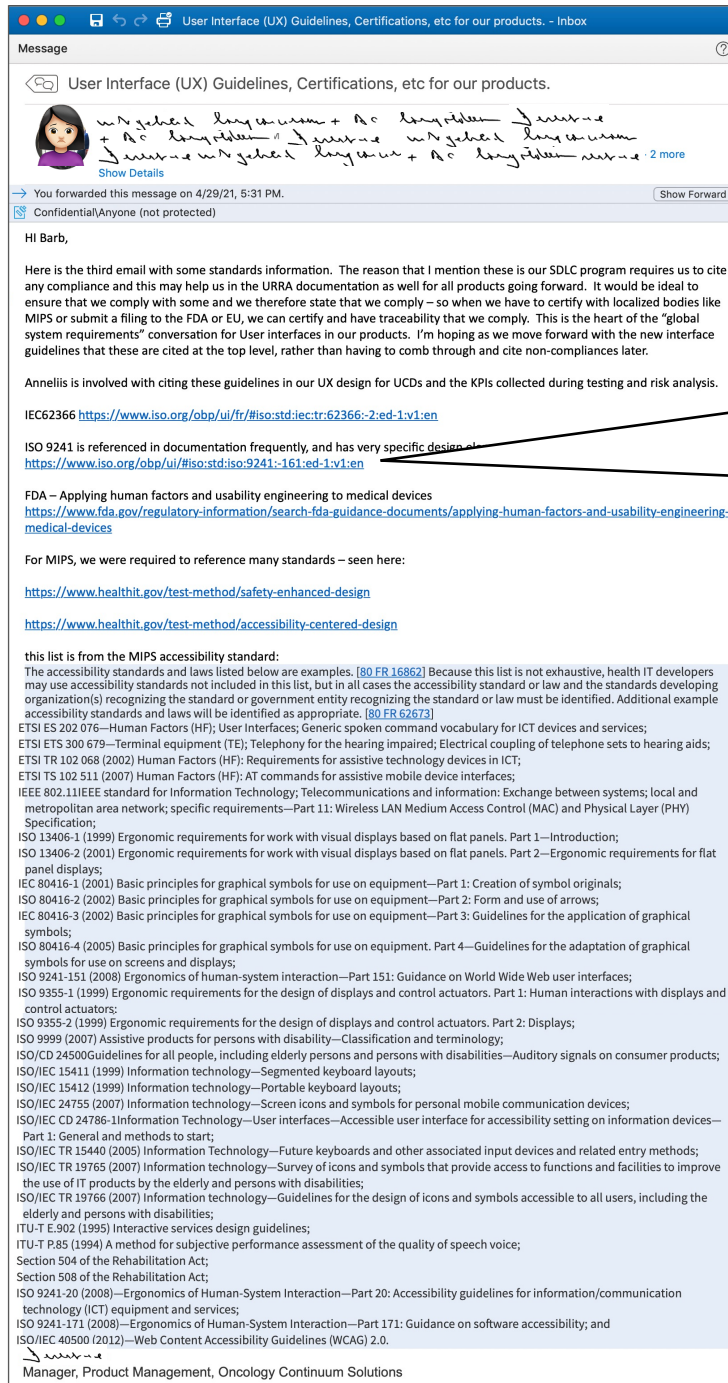
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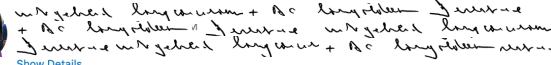
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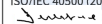
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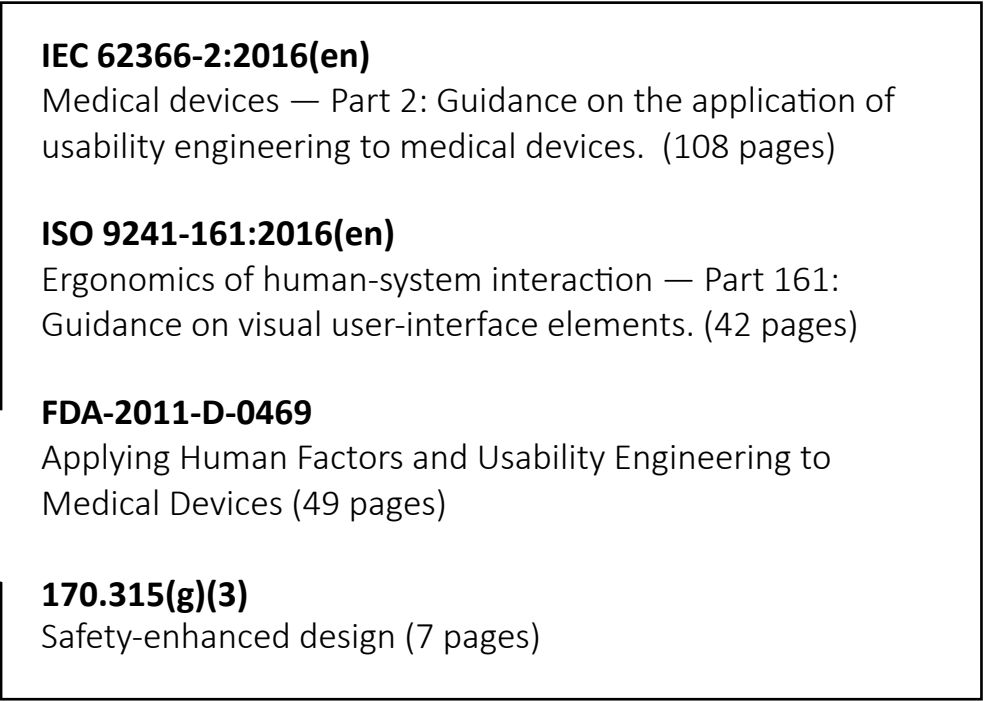
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FDA-2011-D-0469


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FDA-2011-D-0469

Applying Human Factors and Usability Engineering to Medical Devices (49 pages)

170.315(g)(3)

Safety-enhanced design (7 pages OF STANDARDS!!!)

National Guidelines for On-Screen Display of Medicines Information

December 2017

6. Design recommendations

6.3.4 Use a space between numbers and units of measure

Recommendation – leave a blank space between a number and unit of measure

Leave a single blank, non-breaking space between a number and its unit of measure (for example, 32 units).

Rationale – prevent misreading numbers due to close proximity of trailing units of measure

Confusion is possible when numbers appear to flow into the units of measure that follow them.

This situation can be exacerbated by insufficient spacing and incorrect display of units of measure.

In Examples 6.3.4b and 6.3.4d, no spacing has been used between the numbers and units of measure.

In the case of the sodium chloride infusion, the result may be misread as '11 litres per hour'. While the actual administration of 11 litres per hour would be very unlikely, the example shown would still be confusing. For the insulin injection, the dose may be misread as 320 units, with a 10-fold increase of the intended dose.

Dose based

Do this:

6.3.4a

sodium chloride 0.9% – irrigation –
intravesical – bladder – RATE **1 L/hour** –
continuous



Don't do this:

6.3.4b

sodium chloride 0.9% – irrigation –
intravesical – bladder – RATE **1L/hour** –
continuous



Dose based

Do this:

6.3.4c

insulin glargine 100 units/mL – *Lantus* –
injection – subcutaneous – DOSE **32 units** –
once a day



Don't do this:

6.3.4d

insulin glargine 100 units/mL – *Lantus* –
injection – subcutaneous – DOSE **32units** –
once a day



Recommendation – leave a blank space between a number and unit of measure

Leave a single blank, non-breaking space between a number and its unit of measure (for example, 32 units).

Rationale – prevent misreading numbers due to close proximity of trailing units of measure

Confusion is possible when numbers appear to flow into the units of measure that follow them.

spacing and incorrect display of units of measure. In Examples 6.3.4b and 6.3.4d, no spacing has been used between the numbers and units of measure.

In the case of the sodium chloride infusion, the result may be misread as '11 litres per hour'. While the actual administration of 11 litres per hour would be very unlikely, the example shown would still be confusing. For the insulin injection, the dose may be misread as 320 units, with a 10-fold increase of the intended dose.

Dose based

Do this:

6.3.4a

sodium chloride 0.9% – irrigation –
intravesical – bladder – RATE **1 L/hour** –
continuous



Don't do this:

6.3.4b

sodium chloride 0.9% – irrigation –
intravesical – bladder – RATE **1L/hour** –
continuous



Dose based

Do this:

6.3.4c

insulin glargine 100 units/mL – *Lantus* –
injection – subcutaneous – DOSE **32 units** –
once a day



Don't do this:

6.3.4d

insulin glargine 100 units/mL – *Lantus* –
injection – subcutaneous – DOSE **32units** –
once a day



“Don’t kill Grandma.”

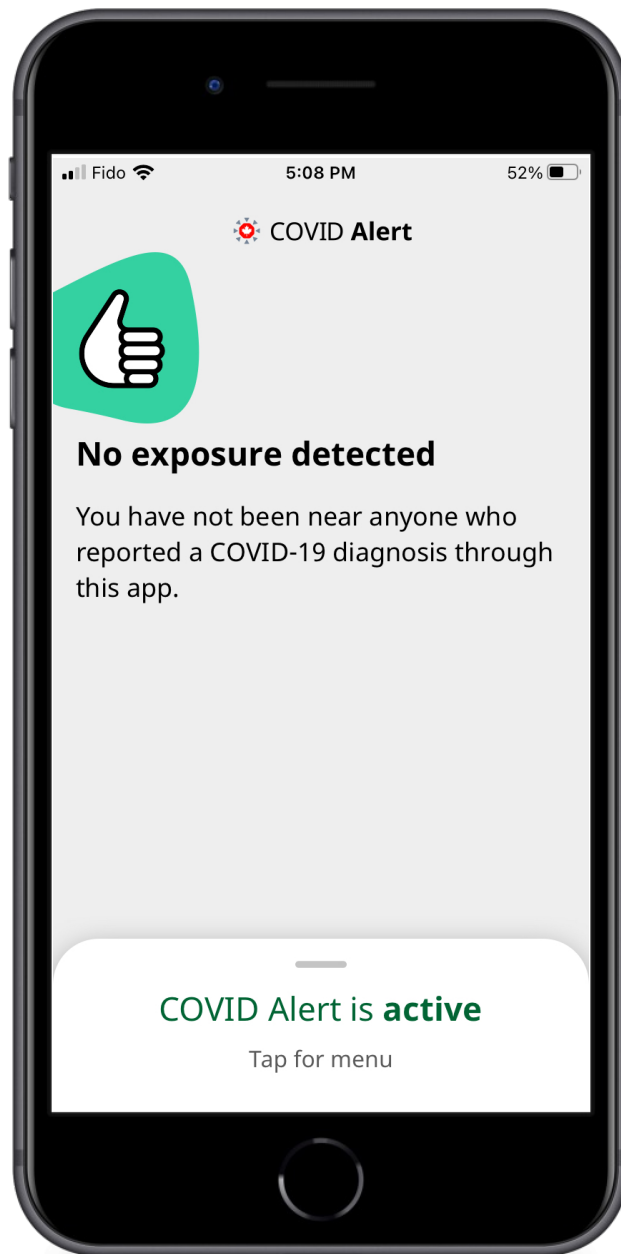
“Don’t kill Grandma.”

@_b_a_r_b_



- 1. It's regulated.**
- 2. It's big and complex.**

“Can’t we just...”



“Don’t kill Grandma.”

@_b_a_r_b_



- 1. It's regulated.**
- 2. It's big and complex.**
- 3. It's sensitive and it matters.**

“Move fast and break things.”

“Move fast and break things.” *

* Except when those ‘things’ are cancer patients.

mess with
“Don’t ~~kill~~ Grandma.”

@_b_a_r_b_



So, how are we supposed to do this work?

3 coping mechanisms

1. Look for short(er)-term wins

Side projects.

(that move fast)

@_b_a_r_b_



A screenshot of the VarianThink web application interface. At the top, there's a navigation bar with "Back" and "Home" links. Below it, a "Home" button with a house icon is visible. The main content area features a large video player with a "START HERE!" banner in the top left corner. The video content shows a "Welcome to VarianThink" message. A large, green, bubbly robot character with a red nose and red spheres for hands is positioned on the right side of the video player. Below the video player, there are three distinct sections: "Video Quick Tips" with a thumbnail of a man, "My Courses and Learning Plans" with a thumbnail of a hand writing, and "MyVarian" with a thumbnail showing course offerings. On the far right, a sidebar contains a list of course items, some marked as "NOT STARTED" or "IN PROGRESS".

Look for side projects that are...

**not regulated.
not too big.
not too complex.
less sensitive.
still meaningful.**

1. **Look for short(er)-term wins**
2. **(Re)connect with your users.**

mess with
“Don’t ~~kill~~ Grandma.”

@_b_a_r_b_



Connecting with our users through
site visits.

@_b_a_r_b_



- 1. Look for short(er)-term wins**
- 2. (Re)connect with your users.**
- 3. Stay focused on the end goal**

Remember:
This is what you wanted to do.



Vision:
A World Without
Fear of Cancer



**What's my
periwinkle carpet?**

@_b_a_r_b_



“Don’t kill Grandma.”

@_b_a_r_b_



varian

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