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### CUSTOMIZABLE USER INTERFACE FOR CONROLLING DIGITAL INTERACTION

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#### Abstract

A system can be used to provide a customizable user interface for controlling a digital interaction. The system can receive authentication data. The system can provide a first user interface page of a customizable user interface. The system can receive first input indicating selection of an interactive element, corresponding to a digital interaction, on the first user interface page. The system can provide a second user interface page based on the digital interaction. The system can receive second input indicating selection of an interactive element on the second user interface page. The system can control the digital interaction based on the second input and a process associated with the digital interaction.

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## Background/Summary

CROSS-REFERENCE TO RELATED APPLICATION [0001] This is a continuation of U.S. patent application Ser. No. 18/439,882, filed Feb. 13, 2024, entitled, “CUSTOMIZABLE USER INTERFACE FOR CONTROLLING DIGITAL INTERACTION,” which is incorporated by reference herein.

### TECHNICAL FIELD

[0002] The present disclosure relates to user interfaces and, more particularly (although not necessarily exclusively), to a customizable user interface that can be used to control a digital interaction with respect to an entity.

### BACKGROUND

[0003] Digital interactions can be facilitated using a computing device. For example, an entity can use a computing device to request goods, services, resources, or the like from a separate entity. Some digital interactions, however, can involve complexities that can render the digital interactions difficult to enable or otherwise control via a computing device. For example, digital interactions involving multiple steps or phases, investigations, input from multiple parties or entities, and the like can be complex and difficult to enable or otherwise control via a computing device.

### SUMMARY

[0004] In some examples, a system can include a processor and a memory including instructions that can be executed by the processor to cause the processor to perform various operations. The system can receive authentication data from a user computing device. The authentication data can indicate a request by a user entity associated with the user computing device to access data relating to in-progress digital interactions. The system can provide, in response to the system validating the authentication data, a first user interface page of a customizable user interface to the user computing device. The first user interface page can include a first set of interactive elements, and each interactive element of the first set of interactive elements can represent a different in-progress digital interaction of a set of in-progress digital interactions. The first set of interactive elements can be arranged on the first user interface page to provide the set of in-progress digital interactions as an interactive list. The system can receive first input from the user computing device. The first input can indicate a selection of a particular first interactive element of the first set of interactive elements. The system can provide a second user interface page of the customizable user interface to the user computing device. The second user interface page can include a second set of interactive elements and a set of corresponding alerts. The second user interface page can be generated based on the particular first interactive element. Each at least some of the interactive elements of the second set of interactive elements can represent a particular type of data associated with a process for performing a particular digital interaction of the set of in-progress digital interactions that corresponds with the particular first interactive element. The set of corresponding alerts can be arranged on the second user interface page to solicit interaction of the user entity with the at least some of the interactive elements to facilitate the process for performing the particular digital interaction. The system can receive second input from the user computing device. The second input can indicate a selection of a particular second interactive element of the second set of interactive elements, and the second input can include previously missing data provided by the user entity in response to the system providing the set of corresponding alerts. The system can control the particular digital interaction involving the user entity based on the second input and the process for performing the particular digital interaction.

[0005] In additional examples, a method can be used to control a digital interaction using a

customizable user interface. The method can include receiving, by a computing system, authentication data from a user computing device. The authentication data can indicate a request by a user entity associated with the user computing device to access data relating to in-progress digital interactions. The method can include providing, by the computing system and in response to the computing system validating the authentication data, a first user interface page of a customizable user interface to the user computing device. The first user interface page can include a first set of interactive elements, and each interactive element of the first set of interactive elements can represent a different in-progress digital interaction of a set of in-progress digital interactions. The first set of interactive elements can be arranged on the first user interface page to provide the set of in-progress digital interactions as an interactive list. The method can include receiving, by the computing system, first input from the user computing device. The first input can indicate a selection of a particular first interactive element of the first set of interactive elements. The method can include providing, by the computing system, a second user interface page of the customizable user interface to the user computing device. The second user interface page can include a second set of interactive elements and a set of corresponding alerts, and the second user interface page can be generated based on the particular first interactive element. Each at least some of the interactive elements of the second set of interactive elements can represent a particular type of data associated with a process for performing a particular digital interaction of the set of in-progress digital interactions that corresponds with the particular first interactive element. The set of corresponding alerts can be arranged on the second user interface page to solicit interaction of the user entity with the at least some of the interactive elements to facilitate the process for performing the particular digital interaction. The method can include receiving, by the computing system, second input from the user computing device. The second input can indicate a selection of a particular second interactive element of the second set of interactive elements, and the second input can include previously missing data provided by the user entity in response to the system providing the set of corresponding alerts. The method can include controlling, by the computing system, the particular digital interaction involving the user entity based on the second input and the process for performing the particular digital interaction.

[0006] In additional examples, a non-transitory computer-readable medium can include program code that can be executed by a processing device to cause the processing device to perform various operations. The operations can include receiving authentication data from a user computing device. The authentication data can indicate a request by a user entity associated with the user computing device to access data relating to in-progress digital interactions. The operations can include providing, in response to validating the authentication data, a first user interface page of a customizable user interface to the user computing device. The first user interface page can include a first set of interactive elements, and each interactive element of the first set of interactive elements can represent a different in-progress digital interaction of a set of in-progress digital interactions. The first set of interactive elements can be arranged on the first user interface page to provide the set of in-progress digital interactions as an interactive list. The operations can include receiving first input from the user computing device. The first input can indicate a selection of a particular first interactive element of the first set of interactive elements. The operations can include providing a second user interface page of the customizable user interface to the user computing device. The second user interface page can include a second set of interactive elements and a set of corresponding alerts, and the second user interface page can be generated based on the particular first interactive element. Each at least some of the interactive elements of the second set of interactive elements can represent a particular type of data associated with a process for performing a particular digital interaction of the set of in-progress digital interactions that corresponds with the particular first interactive element, and the set of corresponding alerts can be arranged on the second user interface page to solicit interaction of the user entity with the at least some of the interactive elements to facilitate the process for performing the particular digital

interaction. The operation can include receiving second input from the user computing device. The second input can indicate a selection of a particular second interactive element of the second set of interactive elements. The second input can include previously missing data provided by the user entity in response to providing the set of corresponding alerts. The operations can include controlling the particular digital interaction involving the user entity based on the second input and the process for performing the particular digital interaction.

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## Description

### BRIEF DESCRIPTION OF THE DRAWINGS

[0007] FIG. 1 is a block diagram of an example of a computing environment including a user interface for controlling a digital interaction according to some implementations of the present disclosure.

[0008] FIG. 2 is a block diagram of an example of a computing device that can be used to provide a user interface for controlling a digital interaction according to some implementations of the present disclosure.

[0009] FIG. 3 is a flowchart of a process for controlling a digital interaction using a user interface according to some implementations of the present disclosure.

[0010] FIG. 4 is an example of a first page of a customizable user interface that can be used to control a digital interaction according to some implementations of the present disclosure.

[0011] FIG. 5 is an example of a second page of a customizable user interface that can be used to control a digital interaction according to some implementations of the present disclosure.

### DETAILED DESCRIPTION

[0012] Certain aspects and features relate to a customizable user interface that can be used to control a digital interaction. The digital interaction can involve an entity, a previously executed interaction, or the like. For example, the digital interaction may be or include a reversal of a previously executed interaction, can include a dispute of a previously executed interaction, or the like. A previously executed interaction may be or include a purchase, such as online or in-person, of a good or a service by the entity, a transfer of resources between the entity and a separate entity, a request to open an account or modify an existing account, or the like. The entity can be or include a user entity such as a user of online computing resources, services, or the like of a providing entity that may be configured to provide, for example via a computing device, the customizable user interface. In some examples, the providing entity may have facilitated the previously executed interaction between the entity and a separate entity with which the previously executed interaction was conducted. The customizable user interface may have multiple pages that can automatically guide the entity with respect to the digital interaction, can automatically keep the entity informed with respect to the digital interaction, and the like. The customizable user interface may include one or more user interface pages that can provide information, that can solicit information, and the like. For example, the customizable user interface can include a first user interface page that can provide the entity with a list or other presentation of potential digital interactions, such as in-progress digital interactions, with which the entity is associated. Additionally or alternatively, the customizable user interface can include one or more second user interface pages that can provide specific details about a selected digital interaction, that can guide the entity to take action for completing the digital interaction, that can solicit specific information or data from the entity for proceeding with the digital interaction, and the like.

[0013] An entity can initiate or otherwise engage in an interaction. The interaction may be or include a real-world interaction, a digital interaction, or a combination thereof. For example, the entity may use an account to transfer resources to a separate entity to request or receive goods, services, content, or the like from the separate entity. The interaction may be successful such as if

the goods, services, content, or the like are successfully received by the entity. In other examples, the interaction may be unsuccessful. The entity may not successfully receive the goods, services, content, or the like, may be unsatisfied with the goods, services, content, or the like, etc. Additionally or alternatively, the interaction may not be legitimate. For example, a malicious entity may gain access to the account and may use the account to provide resources to the separate entity for the goods, services, content, or the like without authorization from the entity.

[0014] Reversing previously executed interactions due to malicious intent, due to a lack of satisfaction of the entity, or due to a failure of the previously executed interactions to be completed successfully can be difficult. For example, conventional techniques for reversing previously executed interactions may not be allowed or enabled to be conducted as a digital interaction, so the conventional techniques may be slow, may be inaccurate due to human error and lack of oversight, and may not be resolved due to an inefficiency of communication with the entity requesting reversal. Thus, conventional techniques may inhibit or otherwise hinder interactions from proceeding.

[0015] In some implementations of the present disclosure a customizable user interface can be used to address the above-described technical problems and additional technical problems. For example, the customizable user interface can allow the digital interaction, which may include or involve reversing a particular previously executed interaction, to be executed or otherwise controlled digitally. For example, the customizable user interface may include one or more user interface pages that can provide information about the digital interaction, that can guide the entity regarding how to proceed with the digital interaction, that can solicit information or data from the entity to facilitate the digital interaction, and the like. By using the customizable user interface, the digital interaction can be controlled or otherwise facilitated by providing sufficient information and guidance to the entity and by receiving sufficient information and data from the entity. In some examples, controlling the digital interaction can involve determining information needed to proceed with the digital interaction, receiving information for initiating the digital interaction, communicating with backend servers to initiate the digital interaction, causing the digital interaction to execute, and the like.

[0016] In some examples, an entity can use a user computing device to access the customizable user interface. A computing system can receive an authentication request from the user computing device. The authentication request can include a request to access an account associated with the entity and may include authentication data such as a username/password combination, biometric data, and the like. In response to verifying that the authentication request is legitimate and accurate, the computing system can provide access to the account to the user computing device such as via a user interface. Additionally or alternatively, the user computing device can be used to navigate to the customizable user interface of the account. For example, the entity can interact with the user computing device to select the customizable user interface, which may be presented as an option on the user interface of the account.

[0017] In response to receiving an indication to provide the customizable user interface, the computing system may provide at least a first user interface page of the customizable user interface. For example, the computing system may generate the first user interface page to include a list or other suitable presentation of data for potential digital interactions, such as in-progress digital interactions, associated with the account that the entity accessed. The in-progress digital interactions may include one or more disputed previously executed interactions, one or more reversals of previously executed interactions, and the like that are associated with the account. In some examples, the in-progress digital interactions may be digital interactions that the entity requested to be initiated but that have yet to be initiated or that have yet to be completed. The first user interface page may provide details about the in-progress digital interactions. For example, the first user interface page may provide dates of initiation of the digital interactions, may provide names of the digital interactions, may provide status indicators for the digital interactions, and the

like. Additionally or alternatively, the first user interface page may allow interaction with the in-progress digital interactions to request additional information about a selected digital interaction. For example, the first user interface page may include a set of interactive features that correspond to the in-progress digital interactions, and selecting a particular digital interaction may involve clicking a particular interactive feature corresponding to the particular digital interaction.

[0018] The computing system can receive input from the entity indicating selection of the particular interactive feature corresponding to the particular digital interaction. The computing system can subsequently receive additional details specific to the particular digital interaction based on the selection. For example, the computing system can use the selection to access a data repository to retrieve data relating to the particular digital interaction. The computing system can generate a second user interface page based on data received about the particular digital interaction, and the computing system can provide the second user interface page to the user computing device.

[0019] The second user interface page can include specific details about the particular digital interaction. For example, the specific details can include information required to proceed with the particular digital interaction, information not yet received from the entity for the particular digital interaction, information already provided by the entity with respect to the particular digital interaction, a date of, or other information associated with, the previously executed interaction associated with the particular digital interaction, and the like. In some examples, the second user interface page can guide the entity for facilitating the particular digital interaction. Guiding the entity can include providing fields or other interactive features on the second user interface page with which the entity can interact to provide missing information for proceeding with the particular digital interaction. Additionally or alternatively, guiding the entity can include providing alerts or other information along with the fields or other interactive features to instruct the entity specifically which information is missing, where to find the missing information, how to provide the missing information via the second user interface page, and the like.

[0020] The computing system can receive input from the entity via the second user interface page. For example, the computing system can receive an uploaded document, natural language text from a keyboard as input, a link to requested information or documentation, or the like. The computing system can determine whether the received input from the entity satisfies the remaining requirements for initiating the particular digital interaction. In examples in which the received input does satisfy the remaining requirements, the computing system may transmit the received information, along with any additional and relevant information, to a particular backend processing system that can initiate the digital interaction. In other examples, the computing system may use the received information, along with any additional and relevant information, to directly initiate the digital interaction, which may include providing resources to the account, reversing the previously executed interaction, or the like. In examples in which the received input does not satisfy the remaining requirements, the computing system may provide a notification to the entity stating such. The notification may indicate that the received information is accepted, or is not accepted due to data corruption, incorrect information, or the like, and may include an indication of additional information requested from the entity to be able to initiate the digital interaction.

[0021] In some examples, the second user interface can be generated based on a process associated with the particular digital interaction or any data associated therewith. For example, if the data associated with the particular digital interaction indicates that the account is a credit card account, then the second user interface can be generated based on a process for initiating the particular digital interaction for the credit card account. In another example, if the data associated with the particular digital interaction indicates that the account is an online security account, then the second user interface can be generated based on a process for initiating the particular digital interaction for the online security account. Additionally or alternatively, initiating the digital interaction may involve communicating with a particular backend processing system of a set of backend processing systems. The computing system can identify a particular backend processing system with which to

interact to initiate the digital interaction based at least in part on the process. For example, if the process is associated with a credit card account or an online digital account, then the computing system can determine to interact with a credit-card-type backend processing system or an online-account-type backend processing system, respectively, to initiate the digital interaction.

[0022] These illustrative examples are given to introduce the reader to examples of the general subject matter discussed here and are not intended to limit the scope of the disclosed concepts. In the following description, for the purposes of explanation, specific details are set forth in order to provide a thorough understanding of various implementations and examples. Various implementations may be practiced without these specific details. The figures and description are not intended to be restrictive.

[0023] FIG. 1 is a block diagram of an example of a computing environment **100** including a user interface for controlling a digital interaction according to one aspect of the present disclosure. Examples of the digital interaction, which may be included in potential interactions **105**, can include retrieving requested resources, such as data from a database, or performing a requested function such as reversing a previously executed interaction on behalf of an entity. The computing environment **100** can be used, for example, to facilitate processing interaction requests and can improve (i) data security by monitoring digital interaction requests and progress for unauthorized or unsuccessful previously executed interactions and (ii) interaction initiation accuracy by providing customizable user interface **104**. The digital interactions controlled or otherwise facilitated by the computing system **102** can be associated with one or more entities, such as users, organizations, devices, and the like.

[0024] In some examples, the computing environment **100** can include a backend system **101**, the computing system **102**, a user computing device **103**, an entity **110**, a network **120**, though the computing environment **100** may include any suitable additional or alternative components. The backend system **101**, the computing system **102**, the user computing device **103**, and any other component or computing device of the computing environment **100** may be communicatively coupled with one another, or with a subset of one another, via the network **120**. Additionally or alternatively, the entity **110** may communicate with the user computing device **103** via one or more input or output devices such as a microphone, a keyboard, a computer mouse, a touchscreen display, and the like.

[0025] The entity **110** can use the user computing device **103** to access the network **120** to request resources, information, and the like from the computing system **102**. For example, the user computing device **103** can receive natural language input, indications of selections, and the like from the entity **110**, and the user computing device **103** can convert the received input into a call, such as an API call, that can be made via the network **120**. In some examples, the network **120** can include any type of network that can support data communications using any of a variety of commercially available protocols. Examples of the network **120** can include TCP/IP (transmission control protocol/Internet protocol), SNA (systems network architecture), IPX (Internet packet exchange), Secure Sockets Layer (SSL) or Transport Layer Security (TLS) protocols, Hyper Text Transfer Protocol (HTTP) and Secure Hyper Text Transfer Protocol (HTTPS), Bluetooth®, Near Field Communication (NFC), and the like. In some examples, the network **120** may be or include a local area network (LAN) such as one based on Ethernet, Token-Ring or the like. The network **120** also may be or include a wide-area network, such as the Internet, or may include financial networks or banking networks, telecommunication networks such as a public switched telephone networks (PSTNs), cellular or other wireless networks, satellite networks, television/cable networks, or virtual networks such as an intranet or an extranet, etc. Infrared and wireless networks, such as those using the Institute of Electrical and Electronics (IEEE) 802.11 protocol suite or other wireless protocols, may also be included in the communication networks.

[0026] The computing system **102** can receive the call from the user computing device **103** and can provide the customizable user interface **104**, and any user interface pages included therein, to the

user computing device **103**. The customizable user interface **104** can indicate the potential interactions **105**, can include graphical objects **116**, can include interactive elements **121**, and the like. The potential interactions **105** may be or include potential digital interactions, which may be or include disputed previously executed interactions, requests for reversal of previously executed interactions, and the like. In some examples, the potential digital interactions may be or include in-progress digital interactions. The graphical objects **116** may be or include features that can be displayed on the customizable user interface **104** and that may or may not be interactive. For example, the graphical objects **116** may include design features of the customizable user interface **104**, may include logos, emblems, trademarks, etc., and the like. The interactive elements **121** may be or include features that can be displayed on the customizable user interface **104** and with which can be interacted. For example, the entity **110** may use the user computing device **103** to interact, for example by clicking or otherwise suitably indicating selection, with one or more of the interactive elements **121**. In some examples, the interactive elements **121** may include one or more subsets of possible interactive elements that can be provided via the customizable user interface **104**. The one or more subsets of possible interactive elements can include a set of first interactive elements and a set of second interactive elements. The set of first interactive elements can be or include interactive elements that correspond to or otherwise represent a particular potential interaction of the potential interactions **105**. Additionally or alternatively, the set of second interactive elements can be or include interactive elements that correspond to or otherwise represent particular data or types of data associated with a selected potential interaction of the potential interactions **105**.

[0027] In response to receiving a request from the user computing device **103** to access an account associated with the entity **110**, the computing system **102** can verify an authenticity of the request. For example, the request may be or include an authentication request with authentication data, and the computing system **102** can request an authentication, such as an enhanced or more scrutinized authentication, from the entity **110**, for example to verify an identity of the entity **110** or a validity of the received request. For example, the computing system **102** may request that the entity **110** provide multifactor authentication (MFA) as the authentication to verify the identity of the entity **110**. Providing the MFA can involve inputting one or more additional or alternative authentication factors than those included in the received request. Examples of the authentication factors can include a username, password, biometric marker, personal identification number (PIN), authentication code, one-time password authentication, or any combination thereof. In some examples, the user computing device **103** may include an authenticator application installed on the user computing device **103** to provide the MFA as the authentication to the computing system **102**.

[0028] In response to authenticating the request or otherwise determining that the request is legitimate, the computing system **102** can provide the customizable user interface **104** to the user computing device **103**. In some examples, the computing system **102** can access information relating to the account of the entity **110** to populate a first user interface page of the customizable user interface **104**. The accessed information may be or include digital interactions that the entity **110** has previously, or is presently, requesting to initiate. The digital interactions may be or include disputed previously executed interactions, reversals of previously executed interactions, and the like. The computing system **102** can generate a list of interactive elements, such as a first subset of the interactive elements **121**, to be provided to the entity **110** via the first user interface page. Additionally or alternatively, the computing system **102** can populate the first user interface page with the list and can transmit the first user interface page to the user computing device **103**.

[0029] Via the user computing device **103**, the entity **110** can provide input for selecting a particular interactive element presented on the first user interface page. Selecting the particular interactive element can cause a drop-down menu to appear with specific details about an in-progress digital interaction corresponding to the particular interactive element. In some examples, selecting the particular interactive element can cause the computing system **102** to generate and



transmit a second user interface page to the user computing device **103**. The second user interface page may be displayed in front of, alongside, or instead of (e.g., replacing) the first user interface page. For example, the second user interface page may be a modified version of the first user interface page. In a particular example, the second user interface page may be or include a drop down (e.g., a menu, status notification, etc.) that can display additional elements, such as a second set of interactive elements, graphical objects, or the like, in response to receiving input indicating selection of a particular digital interaction.

[0030] The computing system **102** can receive selection of the particular interactive element from the user computing device **103** and can determine to which in-progress digital interaction the particular interactive element corresponds. In other examples, the computing system **102** can receive additional or alternative input that can indicate a selection of a particular digital interaction, for example without a direct selection of a particular interactive element. For example, the computing system **102** can receive, such as via the user computing device **103**, a voice command from the entity **110**, and the voice command may indicate that the entity **110** has selected the particular digital interaction even if the entity **110** did not provide input selecting the particular interactive element. In such examples, the list of digital interactions may not be interactive, but the list of digital interactions may enable a selection of the particular digital interaction via input provided by the entity **110**.

[0031] The computing system **102** can determine a particular process for initiating the digital interaction, for completing the digital interaction, and the like. Additionally or alternatively, the computing system **102** can determine a set of data, documents, information, and the like that can be used to initiate or complete the digital interaction. In some examples, to determine the process or the set of data, etc., the computing system **102** can analyze the digital interaction to identify a type of account associated with the digital interaction, to identify a progress of the digital interaction, to identify a type or other classification associated with a previously executed interaction of the digital interaction, and the like. The computing system **102** can use a result of the analysis to determine the process, to determine the set of data, etc., and the like. Additionally or alternatively, the computing system **102** can use the result of the analysis to control communication between the computing system **102** and the backend system **101**, for example to initiate or facilitate a digital interaction.

[0032] The computing system **102** can populate the second user interface page based on the analysis. For example, the computing system **102** can embed a second subset of interactive elements from the interactive elements **121** in the second user interface page. The computing system **102** can identify or generate the second subset of interactive elements based on the selected interactive element from the first user interface page. For example, the selected interactive element may indicate the particular digital interaction selected by the entity **110**, and the computing system **102** can access or otherwise receive data relating to the particular digital interaction to identify or generate the second subset of interactive elements. The second subset of interactive elements can represent data for initiating the digital interaction, for facilitating the digital interaction, for completing the digital interaction, or the like.

[0033] In a particular example, the particular digital interaction may be a dispute against a previously executed interaction as allegedly being fraudulent. The computing system **102** can identify a particular process for initiating or resolving the dispute or otherwise reversing the previously executed interaction. Additionally or alternatively, the computing system **102** can identify a set of data, etc., that can be used to initiate the dispute, that can be used to support the dispute, that can be used to resolve the dispute, and the like. For example, the set of data, etc., can include documentation showing that the previously executed interaction is fraudulent, a natural language statement produced by the entity **110**, historical financial records showing a pattern not supportive of the previously executed interaction, and the like. The computing system **102** can identify or generate the second subset of interactive elements based on the set of data, etc., and can

populate the second user interface page with the identified or generated second subset of interactive elements.

[0034] In another example, the particular digital interaction may be a dispute against a previously executed interaction as allegedly being incomplete or unsatisfactory. The computing system **102** can identify a particular process for initiating or resolving the dispute or otherwise reversing the previously executed interaction. Additionally or alternatively, the computing system **102** can identify a set of data, etc., that can be used to initiate the dispute, that can be used to support the dispute, that can be used to resolve the dispute, and the like. For example, the set of data, etc., can include documentation showing that the previously executed interaction was not completed, a natural language statement produced by the entity **110** indicating dissatisfaction with the previously executed interaction, and the like. The computing system **102** can identify or generate the second subset of interactive elements based on the set of data, etc., and can populate the second user interface page with the identified or generated second subset of interactive elements.

[0035] The user computing device **103** can receive the second user interface page and can provide the second user interface page to the entity **110**. The user computing device **103** can receive input from the entity **110** indicating selection of, or providing additional information relating to, a particular interactive element of the second subset of interactive elements, and the user computing device **103** can transmit the input to the computing system **102**. In some examples, the input may include a selection of a particular interactive element that may be configured to solicit information from the entity **110** to support or facilitate the in-progress digital interaction. In a particular example, the particular interactive element may be a field to allow the entity **110** to provide a natural language statement, and the field may be positioned proximate to a notification informing the entity **110** that the natural language statement is required prior to initiating the in-progress digital interaction. The computing system **102** can receive the input and determine if any other information or data is needed prior to initiating or otherwise controlling the digital interaction. For example, the input may satisfy a portion of the information or data, but not all of the information or data, and the computing system **102** can transmit a notification requesting remaining portions of the information or data. Additionally or alternatively, the input may satisfy the remaining portions of the information or data, and the computing system **102** may proceed with initiating, facilitating, or otherwise controlling the digital interaction.

[0036] The computing system **102** may be communicatively coupled with the backend system **101** such as via the network **120**. In other examples, the backend system **101** may be integrated with the computing system **102** such as included in software or hardware of the computing system **102**, or vice versa. The computing system **102** can generate a call, such as an API call, a query, or the like, and can transmit the call to the backend system **101**. The call may include the data or information required to initiate or complete the digital interaction. Additionally or alternatively, the call may include an indication of a particular backend processing service to use for initiating or completing the digital interaction. The computing system **102** may determine which backend processing service to use based on the type of digital interaction, the type of previously executed interaction associated with the digital interaction, the available data for initiating the digital interaction, or the like.

[0037] The backend system **101** may include various backend processing systems, or may be one of multiple backend systems having one or more backend processing systems each. As illustrated in FIG. **1**, the backend system **101** can include a first interaction processing system **150a** and a second interaction processing system **150b**, though other suitable numbers (e.g., one or more than two) of interaction processing systems are possible for the backend system **101**. The first interaction processing system **150a** may be configured to perform a first process **152a** using first data **154a**, and the second interaction processing system **150b** may be configured to perform a second process **152b** using second data **154b**.

[0038] The backend system **101** may receive the call from the computing system **102** and may

divert the data included in the call to the first interaction processing system **150a** or the second interaction processing system **150b**. For example, the call may indicate a particular process to perform to initiate the digital interaction. Additionally or alternatively, the call may include types of data that at least approximately match the respective data that the first interaction processing system **150a** or the second interaction processing system **150b** is configured to use. In a particular example, the first data **154a** may include interaction details, pdf statements, and a natural language oath, and the call may include data that includes interaction details, pdf statements, and a natural language oath, etc. The backend system **101** can cause the respective process to be executed, or, in other examples, the computing system **102** may cause the respective process to be executed or otherwise controlled based on the call.

[0039] Although FIG. **1** illustrates a particular number and arrangement of components, FIG. **1** is intended to be illustrative and non-limiting. Other examples may include more components, fewer components, different components, or a different arrangement of the components shown in FIG. **1**. Any suitable arrangement of the depicted components is contemplated herein.

[0040] FIG. **2** is a block diagram of an example of a computing system **200**, such as the computing system **102**, that can be used to provide a user interface **216**, such as the customizable user interface **104**, for controlling a digital interaction according to one example of the present disclosure. The computing system **200** may be a network device and may include a processor **202**, a bus **204**, a communications interface **206**, and a memory **208**. In some examples, the components illustrated in FIG. **2** may be integrated into a single structure. For example, the components can be within a single housing. In other examples, the components illustrated in FIG. **2** can be distributed, such as in separate housings, and in electrical communication with each other.

[0041] The processor **202** may execute one or more operations for implementing various examples and embodiments described herein. The processor **202** can execute instructions stored in the memory **208** to perform the operations. The processor **202** can include one processing device or multiple processing devices. Non-limiting examples of the processor **202** include a Field-Programmable Gate Array (“FPGA”), an application-specific integrated circuit (“ASIC”), a microprocessor, etc.

[0042] The processor **202** may be communicatively coupled to the memory **208** via the bus **204**. The memory **208**, such as non-volatile memory, may include any type of memory device that retains stored information when powered off. Examples of the memory **208** can include electrically erasable and programmable read-only memory (“EEPROM”), flash memory, or any other type of non-volatile memory. In some examples, at least some of the memory **208** may include a medium from which the processor **202** can read instructions. A computer-readable medium may include electronic, optical, magnetic, or other storage devices capable of providing the processor **202** with computer-readable instructions or other program code. Examples of a computer-readable medium can include magnetic disk(s), memory chip(s), ROM, random-access memory (“RAM”), an ASIC, a configured processor, optical storage, or any other medium from which a computer processor may read instructions. The instructions may include processor-specific instructions generated by a compiler or an interpreter from code written in any suitable computer-programming language, including, for example, C, C++, C#, Java, Python, Perl, R, etc.

[0043] The communications interface **206** may interface other network devices or network-capable devices to analyze and receive information related to accessing functions of an application. Information received from the communications interface **206** may be sent to the memory **208** via the bus **204**. The memory **208** can store any information received from the communications interface **206**.

[0044] The memory **208** may include program code for determining user interface pages, and data to embed therein, to provide for the user interface **216**. The program code may cause the computing system **200**, or any component within the computing system **200**, to make calls, such as API calls, to separate computing devices or backend systems to provide the user interface **216**, to initiate or

control the digital interaction, etc. The memory **208** may additionally include program code for a data store module **210**, a control access module **212**, an API **214**, and the user interface **216**. In some examples, the API **214** can perform functions including making API calls for causing the digital interaction to be executed or otherwise controlled, for providing the user interface **216** to the user computing device **103**, etc. In some examples, the user interface **216** may be the customizable user interface, such as the customizable user interface **104** of FIG. 1, to allow the computing system **200** to receive user input that can be used to perform functions. Examples of functions can include determining the data to request from the entity **110**, retrieving information regarding previously executed interactions, data to display to the entity **110**, etc.

[0045] The data store module **210** may store information, such as username and password, security information, transactional data, etc., relating to a user account for a number of users and client devices, such as the user computing device **103**, including originating IP addresses of login attempts, browser settings of login attempts, etc. The control access module **212** may include or be communicatively coupled to an authentication service **213** and may validate whether a user access attempt has been successfully authenticated after a user has entered correct account login information. In some cases, the control access module **212** may additionally or alternatively determine the process and data to use to initiate or control the digital interaction. The results from the control access module **212** may be used by the API **214** to request access to the user account, to determine an authentication process to perform with respect to the requested function, to authenticate the requested function (e.g., via the determined authentication process), and to cause the requested function to be executed. Additionally or alternatively, the results from the control access module **212** may be used by the user interface **216** or the computing system **200** to send a request for data or to send a request to execute a function to an API such as the API **214**.

[0046] In some examples, the API **214** and the user interface **216** may be unintegrated or otherwise distributed among more than one server. For example, instead of the API **214** and the user interface **216** being included in the computing system **200**, the API **214** can be included in a first server and the user interface **216** can be included in a second server. In this example, the first server and the second server may include separate housings, separate processors, separate memory, etc. The first server may be configured to perform the functions associated with the API **214**, and the second server may be configured to perform the functions associated with the user interface **216**. In combination, the first server and the second server may be configured to perform the functions of the computing system **200**.

[0047] FIG. 3 is a flowchart of a process **300** for controlling a digital interaction using a user interface according to one example of the present disclosure. In some examples, the computing system **102**, or components such as processor **202**, or other components of the computing system **200**, can perform one or more of the steps illustrated in FIG. 3. In other examples, the processor **202** can implement more steps, fewer steps, different steps, or a different order of the steps illustrated in FIG. 3. The steps of FIG. 3 are described below with reference to components discussed above in FIGS. 1-2.

[0048] At block **302**, authentication data is received by the computing system **102** from a user computing device **103**. The authentication data may be included in an authentication request that may be transmitted to the computing system **102** to request access to an account associated with an entity **110**. The account may be or include a financial services account, an online security account, or the like, and the account may be provided by a providing entity associated with the computing system **102**. Additionally or alternatively, the authentication data may indicate a request by the entity **110** to view or otherwise gain access to a customizable user interface **104** that can be used to control a digital interaction such as a dispute of a previously executed interaction, a reversal of a previously executed interaction, or the like. The customizable user interface **104** may be configured to provide access to data relating to a set of in-progress digital interactions, which may have been requested to be initiated but may not yet have been initiated.

[0049] At block **304**, the computing system **102** provides a first user interface page to the user computing device **103**. The computing system **102** can authenticate the authentication request or otherwise determine that the authentication request is legitimate. In response to authenticating the authentication request, the computing system **102** can provide the first user interface page to the user computing device **103**. In some examples, the computing system **102** can access a data repository to identify data to embed or otherwise include in the first user interface page. For example, the computing system **102** may access the account of the entity **110** to identify pending requests for initiating digital interactions and may populate the first user interface page based on the identified pending requests. The computing system **102** may otherwise suitably identify or generate data to embed or otherwise include in the first user interface page. In some examples, the data embedded or otherwise included in the first user interface page may include a first set of interactive elements. Each interactive element of the first set of interactive elements may correspond to a different digital interaction of the set of digital interactions.

[0050] At block **306**, the computing system **102** receives first input from the user computing device **103**. The first input may indicate selection of a particular interactive element of the first set of interactive elements. For example, the entity **110** may interact with the user computing device **103** to select, such as via a keyboard, a computer mouse, etc., the particular interactive element. The particular interactive element may correspond to a particular digital interaction that the entity **110** wants to view or alter. In other examples, the computing system **102** can receive additional or alternative input that can indicate a selection of a particular digital interaction, for example without a direct selection of a particular interactive element. For example, the computing system **102** can receive, such as via the user computing device **103**, a voice command from the entity **110**, and the voice command may indicate that the entity **110** has selected the particular digital interaction even if the entity **110** did not provide input selecting the particular interactive element. In such examples, the list of digital interactions may not be interactive, but the list of digital interactions may enable a selection of the particular digital interaction via input provided by the entity **110**.

[0051] At block **308**, the computing system **102** provides a second user interface page of the customizable user interface **104** to the user computing device **103**. The computing system **102** can receive the first input and can determine how to generate the second user interface page. For example, the first input may indicate the particular digital interaction, and the computing system **102** may use information about the particular digital interaction to generate the second user interface page or to otherwise determine data and other features to embed in the second user interface page. The particular digital interaction may require or otherwise involve a set of types of data prior to being initiated. For example, the particular digital interaction may involve particular documents, particular input from the entity **110**, and the like, and sometimes in a particular order, prior to being initiated. The computing system **102** can identify the set of types of data and whether each type of data has been satisfied or otherwise received. Based on this, the computing system **102** can generate the second user interface page to have a second set of interactive elements corresponding to the set of types of data. Additionally or alternatively, the computing system **102** can generate the second user interface page to include a set of alerts corresponding to the second set of interactive elements. Each alert of the set of alerts may indicate whether action or input is being solicited from the entity **110**.

[0052] At block **310**, the computing system **102** receives second input from the user computing device **103**. The second input may indicate selection of a particular interactive element of the second set of interactive elements by the entity **110**. The selection may involve natural language input, clicking a link to provide, such as upload, a requested document, or the like. In some examples, the second input may involve the entity **110** providing remaining data for initiating the particular digital interaction. The computing system **102** can analyze the second input to determine whether additional information or input from the entity **110** may be requested prior to initiating the digital interaction. In some examples, the computing system **102** can receive the second input and

update a presentation of the second user interface page such as by adjusting the set of corresponding alerts, by adjusting or removing a subset of the second set of interactive elements, and the like.

[0053] At block **312**, the computing system **102** controls the particular digital interaction based on the second input. The computing system **102** can, for example based on the particular digital interaction, the set of types of data about the particular digital interaction, etc., determine a process for executing, initiating, or otherwise controlling the particular digital interaction. The computing system **102** can determine that sufficient amounts and types of data have been received for controlling the particular digital interaction. For example, the computing system **102** can use data received via the second input to cause the particular digital interaction to be initiated by, for example, transmitting the sufficient amounts and types of data to a backend processing system to cause the in-progress digital interaction to be executed. In other examples, the computing system **102** may include the backend system and may directly initiate and execute the particular digital interaction.

[0054] FIG. **4** is an example of a first page **400** of a customizable user interface **104** that can be used to control a digital interaction according to one example of the present disclosure. As illustrated in FIG. **4**, the first page **400** can include rows **402a-c** and columns **404a-f**, though any other suitable numbers of rows and columns are possible for the first page **400**. The rows **402a-c** may be arranged vertically offset from one another to form a list and may be or include interactive elements. Each row of the rows **402a-c** may represent a different digital interaction of a set of digital interactions associated with a particular entity or account thereof. The columns **404a-f** may be or include graphical features that may be configured to provide particular types of data relating to the set of digital interactions.

[0055] In some examples, selecting a particular row of the rows **402a-c** may cause a drop-down menu to appear, may cause a different user interface page to be generated and displayed, may cause different data to be displayed via the first page **400**, and the like. For example, row **402c** is illustrated as including a drop-down description **406**, which may have been generated in response to selecting the row **402c**. Alternative examples of selection can include generating a separate user interface page to display the data included in the drop-down description **406**, generating an additional user interface to display the data included in the drop-down description **406**, and the like. For example, selecting a particular row of the rows **402a-c** may cause a second user interface page of the customizable user interface **104** to be generated and provided.

[0056] FIG. **5** is an example of a second page **500** of a customizable user interface **104** that can be used to control a digital interaction according to one example of the present disclosure. The second page **500** may be a separate user interface page compared to the first page **400**, may be a drop-down menu of an interactive element included on the first page **400**, may be a sub-page of the first page **400**, or the like. As illustrated in FIG. **5**, the second page **500** is a separate user interface page generated based on input received via a selection on a first user interface page, such as the first page **400**, though the second page **500** can be or include other examples of second user interface pages such as the drop-down menu of the first user interface page, a sub-page of the first user interface page, etc.

[0057] As illustrated in FIG. **5**, the second page **500** can include a first row **502a**, a second row **502b**, and a third row **502c**, though other suitable numbers (e.g., less than three or more than three) are possible for the second page **500**. Each row of the rows included in the second page **500** may provide the same or similar type of information as other rows included in the second page **500**. For example, the first row **502a** may provide information relating to whether a type of data has been sufficiently satisfied, the second row **502b** may provide information indicating which step the in-progress digital interaction is presently at, and the third row **502c** may provide information about a description of the event or associated type of data. Other types of information are possible within the scope of the present disclosure.

[0058] In some examples, the first row **502a**, the second row **502b**, and the third row **502c** may include one or more interactive elements, graphical objects, or a combination thereof. As illustrated in FIG. 5, the first row **502a** may include graphical object **504a** and interactive element **506a**, the third row **502c** may include graphical object **504b** and graphical object **504c**, and so on. In other examples, graphical objects may also be interactive. For example, the graphical object **504c** may be interactive similarly to (e.g., may produce the same result as an interaction with) the interactive element **506a**, etc. Whether the first row **502a**, the second row **502b**, the third row **502c**, or any subset thereof, includes interactive elements, graphical objects, or a combination thereof can be determined by the computing system **102**, for example using data accessed or received and associated with the particular digital interaction. The second page **500** can additionally or alternatively include a finalize interactive element **508** that can be selected once the sufficient amount of information is received to proceed with the particular digital interaction.

[0059] The customizable user interface **104**, the first page **400**, the second page **500**, any other pages of the customizable user interface **104**, or any combination thereof may be involved with one or more digital processes provided by one or more service providers. In a particular example, the one or more digital processes may be or include digital banking provided by a provider of financial services such as a bank. In this example, the customizable user interface **104**, or any page thereof, may be used to submit or manage claims of fraudulent previously executed interactions, incomplete previously executed interactions, unsatisfactory previously executed interactions, and the like.

[0060] Although the subject matter has been described in language specific to structural features or methodological acts, it is to be understood that the subject matter defined in the appended claims is not necessarily limited to the specific features or acts described above. Rather, the specific features and acts described above are disclosed only for the purpose of illustration and description and they are not intended to be exhaustive or to limit the disclosure to the precise forms disclosed.

Modifications, adaptations, and uses thereof will be apparent to those skilled in the art without departing from the scope of the disclosure. For instance, any examples described herein can be combined with any other examples.

## Claims

1. A system comprising: a processor; and a memory including instructions that are executable by the processor for causing the processor to perform operations comprising: providing a first user interface page of a customizable user interface to a user computing device, the first user interface page comprising a first set of elements oriented horizontally and spaced apart vertically from one another on the first user interface page, each element of the first set of elements representing a different in-progress digital interaction of a set of in-progress digital interactions, the first set of elements comprising a subset of first interactive elements, each first interactive element of the subset of first interactive elements corresponding to a different in-progress digital interaction of a subset of in-progress digital interactions of the set of in-progress digital interactions, each in-progress digital interaction of the subset of in-progress digital interactions having a pending action executable by a user entity of the user computing device; receiving first input from the user computing device indicating selection of a particular first interactive element of the subset of first interactive elements; providing a second user interface page of the customizable user interface to the user computing device, the second user interface page comprising a second set of elements and a set of corresponding alerts, the second set of elements arranged horizontally spaced apart on the second user interface page, each corresponding alert of the set of corresponding alert positioned vertically offset from and at approximately the same horizontal position as a corresponding element of the second set of elements to facilitate a process for performing a particular digital interaction of the set of in-progress digital interactions that corresponds with the particular first interactive element, the second user interface page generatable based on the particular first interactive element,

at least some elements of the second set of elements representing a particular type of data associated with the process for performing the particular digital interaction; receiving second input from the user computing device indicating selection of a particular second element of the second set of elements, the second input comprising previously missing data provided by the user entity in response to the system providing the set of corresponding alerts; determining, based on the second input, whether the previously missing data is sufficient to initiate the process for performing the particular digital interaction; and in response to determining whether the previously missing data is sufficient, controlling the particular digital interaction involving the user entity based on the second input and the process for performing the particular digital interaction.

**2.** The system of claim 1, wherein the operation of providing the first user interface page comprises: accessing a data repository that comprises user account data associated with the user entity; determining the set of in-progress digital interactions by identifying in-progress digital interactions indicated by the user account data; and generating the first set of elements by assigning each in-progress digital interaction of the set of in-progress digital interactions to a different element of the first set of elements.

**3.** The system of claim 1, wherein the set of in-progress digital interactions comprises a set of potential reversals of previously executed interactions involving the user entity, and wherein controlling the particular digital interaction comprises initiating a reversal of a particular previously executed interaction associated with the particular digital interaction.

**4.** The system of claim 1, wherein the operation of providing the second user interface page comprises: accessing a data repository comprising data about the set of in-progress digital interactions; determining types of data for initiating the particular digital interaction based on data accessed via the data repository, wherein the particular type of data is included in the types of data; determining a subset of the types of data that are missing from a request to initiate the particular digital interaction; and generating the second set of elements and the set of corresponding alerts based on the subset of the types of data and the types of data.

**5.** The system of claim 4, wherein: the second set of elements comprises a first subset of second elements for satisfied types of data and a second subset of second interactive elements for missing types of data; each element of the first subset of second elements has a first corresponding alert of the set of corresponding alerts that notifies the user entity that a first corresponding type of data of the element is satisfied for the particular digital interaction; each interactive element of the second subset of second interactive elements has a second corresponding alert of the set of corresponding alerts that notifies the user entity that a second corresponding type of data of the interactive element is not satisfied for the particular digital interaction; and the second corresponding alert comprises an input field that facilitates input to satisfy the second corresponding type of data.

**6.** The system of claim 1, wherein the second user interface page is a sub-page of the first user interface page, wherein the second user interface page is presentable on top of or in front of the first user interface page, and wherein a first size of the first user interface page is larger than a second size of the second user interface page.

**7.** The system of claim 1, wherein: each interactive element of the first subset of interactive elements is configured to provide a drop-down description in response to input indicating selection of the interactive element; the second set of elements are arranged laterally offset from one another to form a pseudo-timeline of events, with respect to the particular digital interaction, represented by the second set of elements; and each element of the second set of elements is configured to provide a status indicator and, if a status is similar or identical to “not satisfied,” a field for providing input to satisfy data corresponding to the element.

**8.** A method comprising: providing, by a computing system, a first user interface page of a customizable user interface to a user computing device, the first user interface page comprising a first set of elements oriented horizontally and spaced apart vertically from one another on the first user interface page, each element of the first set of elements representing a different in-progress



digital interaction of a set of in-progress digital interactions, the first set of elements comprising a subset of first interactive elements, each first interactive element of the subset of first interactive elements corresponding to a different in-progress digital interaction of a subset of in-progress digital interactions of the set of in-progress digital interactions, each in-progress digital interaction of the subset of in-progress digital interactions having a pending action executable by a user entity of the user computing device; receiving, by the computing system, first input from the user computing device indicating selection of a particular first interactive element of the subset of first interactive elements; providing, by the computing system, a second user interface page of the customizable user interface to the user computing device, the second user interface page comprising a second set of elements and a set of corresponding alerts, the second set of elements arranged horizontally spaced apart on the second user interface page, each corresponding alert of the set of corresponding alert positioned vertically offset from and at approximately the same horizontal position as a corresponding element of the second set of elements to facilitate a process for performing a particular digital interaction of the set of in-progress digital interactions that corresponds with the particular first interactive element, the second user interface page generated based on the particular first interactive element, at least some elements of the second set of elements representing a particular type of data associated with the process for performing the particular digital interaction; receiving, by the computing system, second input from the user computing device indicating selection of a particular second element of the second set of elements, the second input comprising previously missing data provided by the user entity in response to the computing system providing the set of corresponding alerts; determining, by the computing system and based on the second input, whether the previously missing data is sufficient to initiate the process for performing the particular digital interaction; and in response to determining whether the previously missing data is sufficient, controlling, by the computing system, the particular digital interaction involving the user entity based on the second input and the process for performing the particular digital interaction.

**9.** The method of claim 8, wherein providing the first user interface page comprises: accessing a data repository that comprises user account data associated with the user entity; determining the set of in-progress digital interactions by identifying in-progress digital interactions indicated by the user account data; and generating the first set of elements by assigning each in-progress digital interaction of the set of in-progress digital interactions to a different element of the first set of elements.

**10.** The method of claim 8, wherein the set of in-progress digital interactions comprises a set of potential reversals of previously executed interactions involving the user entity, and wherein controlling the particular digital interaction comprises initiating a reversal of a particular previously executed interaction associated with the particular digital interaction.

**11.** The method of claim 8, wherein providing the second user interface page comprises: accessing a data repository comprising data about the set of in-progress digital interactions; determining types of data for initiating the particular digital interaction based on data accessed via the data repository, wherein the particular type of data is included in the types of data; determining a subset of the types of data that are missing from a request to initiate the particular digital interaction; and generating the second set of elements and the set of corresponding alerts based on the subset of the types of data and the types of data.

**12.** The method of claim 11, wherein: the second set of elements comprises a first subset of second elements for satisfied types of data and a second subset of second interactive elements for missing types of data; each element of the first subset of second elements has a first corresponding alert of the set of corresponding alerts that notifies the user entity that a first corresponding type of data of the element is satisfied for the particular digital interaction; each interactive element of the second subset of second interactive elements has a second corresponding alert of the set of corresponding alerts that notifies the user entity that a second corresponding type of data of the interactive element

is not satisfied for the particular digital interaction; and the second corresponding alert comprises an input field that facilitates input to satisfy the second corresponding type of data.

**13.** The method of claim 8, wherein the second user interface page is a sub-page of the first user interface page, wherein the second user interface page is presentable on top of or in front of the first user interface page, and wherein a first size of the first user interface page is larger than a second size of the second user interface page.

**14.** The method of claim 8, wherein: each interactive element of the first subset of interactive elements is configured to provide a drop-down description in response to input indicating selection of the interactive element; the second set of elements are arranged laterally offset from one another to form a pseudo-timeline of events, with respect to the particular digital interaction, represented by the second set of elements; and each element of the second set of elements is configured to provide a status indicator and, if a status is similar or identical to “not satisfied,” a field for providing input to satisfy data corresponding to the element.

**15.** A non-transitory computer-readable medium comprising program code executable by a processing device for causing the processing device to perform operations comprising: providing a first user interface page of a customizable user interface to a user computing device, the first user interface page comprising a first set of elements oriented horizontally and spaced apart vertically from one another on the first user interface page, each element of the first set of elements representing a different in-progress digital interaction of a set of in-progress digital interactions, the first set of elements comprising a subset of first interactive elements, each first interactive element of the subset of first interactive elements corresponding to a different in-progress digital interaction of a subset of in-progress digital interactions of the set of in-progress digital interactions, each in-progress digital interaction of the subset of in-progress digital interactions having a pending action executable by a user entity of the user computing device; receiving first input from the user computing device indicating selection of a particular first interactive element of the subset of first interactive elements; providing a second user interface page of the customizable user interface to the user computing device, the second user interface page comprising a second set of elements and a set of corresponding alerts, the second set of elements arranged horizontally spaced apart on the second user interface page, each corresponding alert of the set of corresponding alert positioned vertically offset from and at approximately the same horizontal position as a corresponding element of the second set of elements to facilitate a process for performing a particular digital interaction of the set of in-progress digital interactions that corresponds with the particular first interactive element, the second user interface page generatable based on the particular first interactive element, at least some elements of the second set of elements representing a particular type of data associated with the process for performing the particular digital interaction; receiving second input from the user computing device indicating selection of a particular second element of the second set of elements, the second input comprising previously missing data provided by the user entity; determining, based on the second input, whether the previously missing data is sufficient to initiate the process for performing the particular digital interaction; and in response to determining whether the previously missing data is sufficient, controlling the particular digital interaction involving the user entity based on the second input and the process for performing the particular digital interaction.

**16.** The non-transitory computer-readable medium of claim 15, wherein the operation of providing the first user interface page comprises: accessing a data repository that comprises user account data associated with the user entity; determining the set of in-progress digital interactions by identifying in-progress digital interactions indicated by the user account data; and generating the first set of elements by assigning each in-progress digital interaction of the set of in-progress digital interactions to a different element of the first set of elements.

**17.** The non-transitory computer-readable medium of claim 15, wherein the set of in-progress digital interactions comprises a set of potential reversals of previously executed interactions

involving the user entity, and wherein controlling the particular digital interaction comprises initiating a reversal of a particular previously executed interaction associated with the particular digital interaction.

**18.** The non-transitory computer-readable medium of claim 15, wherein the operation of providing the second user interface page comprises: accessing a data repository comprising data about the set of in-progress digital interactions; determining types of data for initiating the particular digital interaction based on data accessed via the data repository, wherein the particular type of data is included in the types of data; determining a subset of the types of data that are missing from a request to initiate the particular digital interaction; and generating the second set of elements and the set of corresponding alerts based on the subset of the types of data and the types of data.

**19.** The non-transitory computer-readable medium of claim 18, wherein: the second set of elements comprises a first subset of second elements for satisfied types of data and a second subset of second interactive elements for missing types of data; each element of the first subset of second elements has a first corresponding alert of the set of corresponding alerts that notifies the user entity that a first corresponding type of data of the element is satisfied for the particular digital interaction; each interactive element of the second subset of second interactive elements has a second corresponding alert of the set of corresponding alerts that notifies the user entity that a second corresponding type of data of the interactive element is not satisfied for the particular digital interaction; and the second corresponding alert comprises an input field that facilitates input to satisfy the second corresponding type of data.

**20.** The non-transitory computer-readable medium of claim 15, wherein the second user interface page is a sub-page of the first user interface page, wherein the second user interface page is presentable on top of or in front of the first user interface page, and wherein a first size of the first user interface page is larger than a second size of the second user interface page.

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